

MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF
THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

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MIGHT AND RIGHT.

If Might made Right, life were a wild-beast's cage;
If Right made Might, this were the golden age;
But now, until we win the long campaign,
Right must gain Might to conquer and to reign.
—Henry Van Dyke.

A MAN THROUGH AND THROUGH.

There are a great many persons in this country who are not admired or loved former President Roosevelt, and there are a great many others who have seemed almost to hate him. But we believe, now that he is stretched upon a bed of pain and danger, there is not a red-blooded man in the country who will not say a prayer for his recovery.

The Sun has not hesitated to criticize Mr. Roosevelt, in or out of office, when his conduct or his utterances appeared to justify it, but we are glad to think now that we have not failed in generous recognition of his admirable qualities and of his splendid Americanism. Whatever else may be said of him, Mr. Roosevelt has never failed in the virtues that most become a man—courage and strength of character. And his patriotism during the last three years has been as a pillar of fire to guide and inspire us in a period of great perplexity and peril.

The world loves a fighter, as it despises a shirker and a moral weakling. And it sympathizes with Colonel Roosevelt now because he has been a man of might among men and a born warrior, in whose soul lived the joy of battle. And in the main he has been a crusader for great things.

We hope with all our hearts he may live many years to fight with his customary vigor for the ideals that appeal to his enthusiastic mind, and against the things he believes evil. Such a man may be a torment to his enemies, a thorn in the flesh and in the mind to opponents, but his country and his countrymen owe him a very debt of gratitude for the giant blows he has struck in the cause of freedom and good government.—Baltimore Sun.

In this splendid tribute to Colonel Roosevelt the Sun has so thoroughly voiced the sentiment of the MANUFACTURERS RECORD that we adopt its statement as our own.

WHATEVER ELSE HE IS, HE'S NO ATLAS.

WASN'T Mr. Newton D. Baker trouble enough without being called upon to also bear the burden that goes with William J. Bryan's approval?—New York Herald.

Even Mr. Baker's bitterest critics do not think he deserves such fate as to have Wm. J. Bryan's commendation. Bryan, the anti-preparedness fighter, the million-man-over-night-army prophet, is too great a burden for any man to have to carry. Poor fellow! He does not deserve such fate.

How Germany Has for Years in Devious Ways Carried on Its Propaganda Against Our Country.

ABOUT 20 years ago the cotton manufacturers of the South held a meeting in Charlotte which was probably in some respects the most representative and outstanding meeting in importance ever held by Southern cotton men; it was attended by 500 or 600 men.

Much of the time was given to discussion as to the importance of shipping to safeguard the business interests of the nation. During that meeting every address made, so far as the writer can remember, on the shipping subject was strongly in favor of a subsidy in order to build up our shipping interests.

The late D. A. Tompkins of Charlotte, at that time probably the foremost industrial leader of the South, a man whose democracy had never been questioned by anyone, but who had a vision to see the great economic questions of the day, strongly advocated ship subsidies. He was followed by others and resolutions were unanimously and enthusiastically passed in favor of the subsidizing of ships built and owned by Americans as absolutely essential to the upbuilding of our foreign commerce and the protection of this country in time of war. But pro-German activities and politics, the curse of politics for politics' sake, regardless of economic questions, later on prevented Congress from heeding this great call of the business men of the South.

Long before that meeting in Charlotte 20 years ago and ever since the early years of its existence the MANUFACTURERS RECORD had unceasingly preached the doctrine of the necessity of ship subsidies in order to round out the life of this nation and save it from disaster in time of war while upbuilding its interests in time of peace. This was its position 30 years or more ago and this has been its position ever since. This has been the position of many of the most farseeing intelligent men of the South as well as of other sections, but the power of Germany's subsidized steamship companies in shaping the thought of this country on shipping, as on other subjects, was so great that men in Congress voted against their own country and voted directly according to the wishes of Germany in voting against ship subsidies.

To those who cared to study the situation from the inside point of view, it was known that these foreign steamship lines, led especially by the great German companies, were open and outspoken in their effort to control legislation in this country against the development of an American merchant marine. So vigorous was this work that some years ago it was shown in an investigation in Congress that a member of the staff of the Associated Press in Washington was in the employ of a German steamship company, and one can readily understand how such an employe, working for that company, could have colored and discolored many statements sent out by the Associated Press and thus help to shape the thought of the nation.

It is needless to say that the Associated Press rigidly seeks to avoid the employment of men who draw pay from other organizations for the purpose

of helping such organizations, but this particular case is a matter of official record in Congress and the man was promptly discharged by the Associated Press as soon as Congressional investigation opened up the situation.

The details of that case and many of the illustrations of the power of German subsidized steamship lines fighting against the building of an American merchant marine are illuminatingly told in our Washington correspondence today. The review of the whole situation by our correspondent should be carefully studied by every thoughtful man who desires to know some of the things which go on in this country designed for the express purpose of misleading the nation.

Just as the German steamship lines for many years maintained their lobby in Washington and their paid agents to fill the newspapers in the country with falsehoods in regard to shipping, in order that they might prevent the development of shipbuilding in this country, looking forward to the time when the possibility of war with Germany would make it desirable that we should have no shipping, so today the same pro-German influences are at work seeking to create, to the extent of their ability, a false sense of security in this country and are endeavoring to create the impression that criticisms of inefficiency in Washington affairs are injurious to the nation, in order to permit inefficiency to continue its deadly work.

Many an editorial denouncing Senators Chamberlain and Hitchcock and other Senators who have been fighting for efficiency in order to strengthen the war machine in this country will be secretly inspired by pro-German influence, and here and there, without the writers themselves appreciating the fact that they are working in the interest of Germany, will be written many an article denouncing these Senators and others who have criticised inefficiency, distinctly promulgated by the silent, secret work of pro-Germans. Many an editor will write an editorial denouncing these Senators and denouncing the criticisms against inefficiency, criticisms which have already developed greater efficiency, while unaware of the fact that he is today being worked in the interest of Germany just as thoroughly as were the papers and the people worked in the interest of Germany when they published the stuff sent out from Washington by paid German agents, skillful enough to cover up their tracks, in fighting the creation of an American merchant marine.

Herr Ballin, general manager of the Hamburg Steamship Co., regarded for many years prior to the war as the most powerful man in Germany next to the Emperor, boldly and baldly made a speech to American business men in New York some years ago antagonizing the building of a merchant marine in America, and insisting that Germany should be permitted to carry American commerce on the high seas. He and his many representatives constantly attacked and denounced all legislation looking to

the upbuilding of our merchant marine. How many newspaper people who were in their employ other than one of the staff of the Associated Press in Washington no one will ever know, but that they did have their agents working throughout this country in order to mislead the nation in every way possible is clearly seen.

How many pro-Germans today are sending out from Washington false statements, how many pro-Germans are dropping the thought here and there that criticism of inefficiency is disloyalty, the country will never know. We do know, however, from past experience, that German activities in this direction are nation-wide. Many men who today denounce the Senatorial investigation for letting in the light and bringing about conditions which have wrought a mighty improvement in Washington in the last three weeks, bringing into the War Department some of the ablest business men in the country, supplanting inefficient men, are working in the interest of Germany, even though they do not recognize the fact themselves.

If our readers will carefully study the story of Germany's fight against American shipping interests, and given in this issue from official records, it will see one way in which Germany has for many years carried on its propaganda. During all of the German campaign against American shipping the MANUFACTURERS RECORD vigorously fought this propaganda, published many of the facts which our correspondent has now brought together in this interesting story, and during all of that period we unceasingly denounced the efforts of these subsidized foreign steamship lines to control American legislation.

That is the task in which we are still engaged, and those who today are seeking to misrepresent this position are exactly in the same line with those who vigorously fought for many years the work that we are doing in trying to expose the propaganda against American shipping interests. The German propaganda extends throughout this country. It enters into millions of homes and into hundreds of thousands of business offices which were least expected. The former head of the United States Secret Service has recently been quoted as saying that he believes there are 250,000 definite German spies in the United States. The number of people working for Germany, however, probably far exceeds the number of actual spies. These spies and agents are found everywhere. Indeed, many of them are not found at all, but they are working everywhere and many times where least expected, but they are working all the same.

SURELY A SLANDER.

YEA, verily, Mr. Wilson has plenty of vision—the long look ahead—and the people of the Old World, groping toward the light, need his guiding hand, and this is why he has need of a war council, a body competent to lift from his shoulders the infinite lot of details which he is now carrying and which are calculated not only to impair the long look ahead, but to utterly crush him physically. We rather think that Mr. Roosevelt and the others approached this matter in the very worst way. They should have gone to the President direct and shown their sympathetic interest. Instead, they have rushed into print and spoken from platform, and Mr. Wilson being Scotch—well, no Scotchman ever yet was driven.—Waco Times-Herald.

The good old Democratic paper, the Times-Herald, states the case fairly, except in the last sentence in which it suggests that hardheadedness of Scotch origin is keeping Mr. Wilson from doing what the Times-Herald thinks he should do. That in plain English would mean that Mr. Wilson would not do right merely because of the way it was presented to him. That surely is a slander.

HOW ONE COUNTY IS AWAKENING LATENT PATRIOTISM.

T. J. SHELTON, traffic manager of the Arkansas & Louisiana Midland Railway Co. of Monroe, La., in calling attention to the activity of the patriotic forces of that county in arousing the people to the situation, sends a circular issued by the Ouachita Parish Council of Defense and also a copy of the Monroe News Star, a copy of which is being mailed to every voter in the parish. This is typical of the way the people of that parish are at work, and in the study of these activities may be found many suggestions for others.

The circular-letter issued by the Ouachita Parish Council of Defense is as follows:

This is a personal letter to you, and we ask in advance that it have your most careful consideration.

Fully realizing that a combined effort on the part of the intelligent and patriotic citizenship of Ouachita Parish is necessary to the successful performance of our duties, the Ouachita Parish branch of the National Council of Defense wishes to enlist your help, and to emphasize the necessity of your personal attendance at our meeting, and your earnest assistance in carrying forward the objects and aims of the council as set forth in the folder herewith enclosed.

This council is organized for the purpose indicated by the name—the defense of our parish and people during the war—and the work deserves and needs the active support of all loyal citizens. Ouachita Parish is in this war, and the people at home have duties to perform as well as the soldiers at the front. We are concerned with important war activities, namely, doing our part in helping to finance the war, conserving food and foodstuffs, and producing feed and food in this parish enough to provide for our own needs and have a surplus to help feed our Allies. One of our most urgent duties is to convince our farmers of the absolute necessity of planting an abundance of food and feed crops during 1918 to feed our own people and animals during this year and next, and have a surplus. Unless this parish produces enough food for its own use, there is a probability that our people will go hungry, for the soldiers and sailors must be fed first.

There are many duties devolving upon us all in this time of peril. We are looking to you to render practical aid in the great work before us, and suggestions from you as to how best to arouse the citizenship in your community and neighborhood are very much desired. The Council of Defense has established headquarters at the office of the Chamber of Commerce on Grand

Cable advices from England state that the British Government has reprinted from the Manufacturers Record

FIVE MILLION COPIES

OF
REV. NEWELL DWIGHT HILLIS'
GREAT LECTURE

Germany's War Plans And Her Atrocities in Belgium and France

Great Britain's tribute to the marvelous power of this address is such an endorsement of its tremendous value that every man and woman in America, without waiting for similar action by our Government, should do the utmost to spread broadcast the pamphlet copy of this address.

Copies will be mailed from this office to any list of names submitted at

FIVE CENTS PER COPY

or will be shipped

in bulk at

FOUR DOLLARS PER HUNDRED

MANUFACTURERS RECORD
Baltimore, Maryland

street in Monroe, and we ask that you send communications to this address.

You will be furnished with educational literature from time to time bearing upon subjects of interest and the duties of all loyal Americans during the war. We wish to especially enlist your co-operation in the distribution of this literature and the explanation of same to your neighbors. Discourage unsympathetic criticism of our Government or its officials in the present crisis, and promptly report all disloyal talk or acts on the part of anyone. See that your ward committee keeps actively at work, and let us hear from you at the headquarters whenever you need assistance or wish to make a report or suggestion on any point affecting the welfare of Ouachita Parish.

The full and active co-operation of the leaders of thought in this parish is necessary to successfully carry out our duties to our country and to our neighbors and ourselves. Let us hear from you.

WE WERE RIGHT THEN, AND MAY WE NOT BE RIGHT NOW?

WAS the MANUFACTURERS RECORD right when for three years it fought for national preparedness at a time when others were denouncing that position and claiming that we did not need to enlarge our army and navy?

Was Secretary of War Garrison right when he resigned because he knew that our safety depended upon training an army and his position became untenable because others opposed his views on that point?

Was Secretary Lane right when he urged coal operators last summer to increase their output to the utmost extent, or Dr. Garfield right when he said the coal situation was a psychological one and warned consumers not to buy coal?

Was the MANUFACTURERS RECORD right when for ten years it unceasingly predicted a complete breakdown of the railway situation which would cost the country billions of dollars, or were Mr. Brandeis and the Interstate Commerce Commission right when they denied the accuracy of this forecast and brought about the present fearful railroad collapse?

Was the MANUFACTURERS RECORD right when it warned the country for years to prepare to meet Germany's scientifically-created war machine of barbarism, when others were denying that we were in any danger?

Was the MANUFACTURERS RECORD right when for years it insisted that munition plants should no longer be concentrated upon the Eastern seaboard?

Was the MANUFACTURERS RECORD right when for more than a year it tried to spur the War Department to some decision as to building a nitrate plant for which Congress had appropriated \$20,000,000, when now, because of a desperately acute situation as to explosives, the War Department is feverishly trying to build within six months a plant to cost \$15,000,000 to \$25,000,000, and which by reason of the seriousness of the need of explosives asked if the plant could not be rushed to completion in three months, when army officials had wasted 12 months in doing nothing?

Was the MANUFACTURERS RECORD right when for three years it unceasingly warned the nation as to a coming food shortage, though many official sources were sending out the most optimistic reports as to an abundant supply?

Are the people of this country willing, for party or friendship's sake, to shut their eyes to facts and to refuse to see the precipice toward which they are walking, merely because to do so would require them to find out if all their guides are absolutely trustworthy?

When criticised today because we are willing against personal friendship, to cry out against incompetents in Washington we are willing to stand on the record of the last three years of war and to await the judgment of the future.

MISS H. M. BERRY has been made acting State Geologist of North Carolina. She is said to be the only woman who has ever held such a position. Dr. Joseph Hyde Pratt, State Geologist, is now in France in command of an engineer battalion.

The Food Question and Its Relation to the Nation and to Civilization.

LAST October President Wilson and Mr. Herbert Hoover, in calling upon the country for food conservation, expressed the thought that we had been blessed with an abundance for ourselves, but we needed to conserve in order to care for our Allies. In view of the steady decrease in food production in proportion to population which has been going on for some years, with the exception of 1915, when we had record grain crops, and which has been acute during the last two years, even without regard to the needs of the Allies, the editor of the MANUFACTURERS RECORD urged upon President Wilson and Mr. Hoover in correspondence the seriousness of the food situation if considered only from the standpoint of our own needs. As the food issue is now becoming one of the dominant questions of the world, to some extent endangering civilization itself, the food shortage having in it a germ of socialism and anarchy, it may be worth repeating at the present time some of the statements made in these letters to President Wilson and Mr. Hoover. Under date of October 30, 1917, we presented some facts bearing upon the urgency of the situation to President Wilson as follows:

October 30, 1917.

Hon. Woodrow Wilson,
Executive Mansion,
Washington, D. C.:

My Dear Mr. President—Will you pardon me if, in the interest of the country and of our Allies, I invite your attention to the statement made in your appeal for food conservation, in which you say that our country is blessed with an abundance of foodstuffs, and to the fact that for many years our food supply has been steadily decreasing in proportion to population?

It is true that we have raised about 1,000,000,000 bushels more of grain and foodstuffs than we raised last year; but last year we had nearly 1,400,000,000 bushels less than we had the year before. This year's wheat yield is 150,000,000 bushels less than the average yield of the last five years. It is 88,000,000 bushels short of the yield of 1901, or 16 years ago, when we had 25,000,000 or 30,000,000 people less than we have today.

We have 15,000,000 less sheep than we had 14 years ago, or in 1903. We have 8,500,000 head less of beef cattle than we had in 1909, and the report of the Department of Agriculture issued a few weeks ago showed that there was a decline in the last 12 months of 5,400,000 in the number of swine.

Our aggregate production of wheat and corn for 1916 and 1917 is 490,000,000 bushels short of the aggregate production of the two preceding years. If we can get the country to face these facts we shall have a very much stronger argument for food conservation than the appeal for food conservation in order to help the Allies. Measured by all the standards of production in the past, we have an actual, serious food shortage without regard to the increased needs of the Allies and to the increased consumption of food which always takes place in times of general employment and high wages.

It is but natural that this decreased food supply should have been going on in view of the great increase in the percentage of urban population to the total population of the country, which has been much in evidence during the last 25 or 30 years.

I trust that you will pardon me for presuming to call your attention to these facts on the ground that unless the country understands this actual food shortage as compared with previous years it will be impossible to make the people understand the reasons for high prices of food and to fully understand the necessity of food conservation.

Very truly yours,

RICHARD H. EDMONDS, Editor.

To that letter a very interesting reply was received from the President, but as it was not written for publication, we cannot use it. But in the course of a reply from the MANUFACTURERS RECORD it was said:

As I have stated the facts in connection with the matter at different times in public discussion of the necessity of food conservation, I have found that the people immediately became much more deeply interested in the necessity of food conservation. So long as they felt that there was an abundance of food in the country they could not be deeply impressed with the necessity of increased production and the conservation of what we have. But the moment that I gave them the actual facts as to the actual decrease of our crops and our livestock, running back prior to the war, I found an immediate response.

I can fully recognize that it would be most unfortunate to create a panic state of mind as to food supplies, but I do not believe that a panicky condition need be developed by letting the public know the facts and using

this truth as an argument why it becomes supremely important to lessen our wastefulness in food consumption and to increase our food production.

As I look upon the matter, we have an insufficient food supply for our needs based on the production and consumption of former years, and only after a general and comprehensive system of conservation has been put into effect throughout the country will we be able to feel that the supply will carry us safely through the crop year and partly meet the needs of the Allies.

If, on the contrary, the impression be created that we have an abundance of food in this country, and the actual facts as to the steady decrease of recent years be suppressed, then we shall create a false impression which will be used as a basis on which to start food riots and anarchistic attacks upon high prices due to the ignorance of the public as to the actual facts. And when the people begin to learn the real facts they will then question the correctness of all statements issued in regard to the war situation.

It has been my experience that the people of this country are ready to face almost any issue if they fully understand the situation, but that they cannot be united wholeheartedly for any work in such an hour as this unless they do understand the reason for the call upon their services. And in the matter of food our people, producers and consumers alike, are not thoroughly informed, nor do they generally understand that the shortage in ammonia and in nitrates may bring about a still further lessening of the yield per acre, until we are able, by the development at home, without depending on a country thousands of miles away, to produce the ammonia and the nitrates so essential to agriculture as well as to the manufacture of explosives. I believe that if the people of the country had fully understood the danger of depending upon the importations of nitrates from Chile at a time when every ship is needed in order to feed and munition our own army and the Allies, and recognized also the possibility of our importations of nitrates being cut off by submarine activity, that there would have been no rest until we had built in this country adequate nitrate and ammonia-producing plants.

The utmost energy of the nation will be needed to encourage a larger food production next year, for we shall go into the next crop year practically bare of food supplies as compared with former years. The utmost stretch of energy will be needed to quicken our farmers into an understanding of this situation, and unless this is pressed upon the entire country, so that farmers and bankers and merchants and manufacturers may all co-operate toward increased food production, through co-operation of business interests with the farmers, then we shall face a year hence a situation that might be extremely dangerous.

It is in the light of these facts that I have felt the importance of pressing these points upon public attention, and I may be permitted to say that for the last five or ten years I have been pointing to the certainty of this situation in the light of the enormous increase in city population and the small increase in country population.

This letter was referred by the President to Mr. Hoover, who, in the course of a lengthy reply, in which he discussed the food situation of this country and the Allies, but which he also requested should not be published, he added:

Your good work in insistence upon conservatism has been of great help, and I wish to thank you personally for your support.

Replying to that the following letter was sent:

Acknowledging the receipt of your letter. It is true that we exported a large amount of grain last year, largely out of the carry-over from 1915, but we brought our reserves down to the lowest point in the history of the country so far as the figures on reserves can be obtained.

A few months ago the Department of Agriculture issued a statement that the supply of corn in the great corn-growing States of the West was lower than ever before in the history of the country.

The increased production of this year has not filled the vacuum created by last year.

It is true that we have been wasteful to the extreme in the consumption of foodstuffs. We have indeed, as you suggest, used more than was good for our health. But based on the consumption of the past, we face conditions which of necessity demand a very great conservation of food and a scale of living entirely unlike any we have had in this country since the Civil War. I have found in public talks that whenever I stated the actual facts in regard to the decrease in food supplies as compared with former years, I got an immediate response in favor of food conservation. The average production of wheat and corn per capita for the city population of the country was in 1880, 33.7 bushels of wheat and 116.2 bushels of corn. The production of wheat and corn per capita for city population in 1910 was 14.9 bushels of wheat and 67.7 bushels of corn,

showing the tremendous decline that has taken place by reason of the relative decrease of country population as compared with the great increase in city population. No figures are available for detailed comparisons since 1910, but it is well known that city population during the last seven years has been increasing at an even greater rate over, the growth of country population up to that time.

It is also a well-known fact that whenever labor of the country is fully employed and at high wages, the consumption of foodstuffs, both of wheat and meats, always makes a great jump.

For many years I have been vigorously trying to present to the country the fact that the growth of city population in excess of country population and the gradual decrease in the production of wheat and meats would bring about a great increase in the cost of foodstuffs, and for years I have warned the country of the coming of this situation, and that entirely without regard to the war conditions which have now been injected into the situation, which was already growing serious.

Through the MANUFACTURERS RECORD and other publications, secular and religious, and through personal work, I am doing all in my power to bring the country to a realization of the necessity of food conservation and increased food production. I enclose proof of an editorial to appear in tomorrow's issue of the question of food conservation, and showing why the food cards should be signed.

"The work in which you are engaged is a work of supreme importance to the world."

These letters are published at the present time merely in order to reiterate in this form the facts which for the last three years we have been pressing upon public attention. We have been warning the nation that we were headed straight toward a food famine. And while some have questioned the correctness of this and others the wisdom of stressing these facts so as to enable the public to fully understand the seriousness of the decline in our food supply and the danger of decreased food production under existing conditions, the MANUFACTURERS RECORD has held that the country should know the exact facts and face the issue.

The great question before America and before civilization today is, Can we increase our food production to an extent sufficient to meet the needs of the Allies and of our own country at a price for food which will not be so high as to bring about food riots and anarchy?

The farmers face an issue as serious as the country faces in the fuel question. They cannot produce food even at present prices to an extent sufficient to meet our requirements. Labor is scarce, fertilizers are high, agricultural implements are high and industrial activities are drawing men away from the farms and paying them much higher wages than the farmers have ever been able to pay, and therefore the country is squarely up against a stone wall. We cannot butt it down, we cannot crawl over it, and we cannot see how to get around either end, but some way must be found to break down the stone wall, or else food conditions will become very much more serious than fuel conditions.

To this subject the most earnest consideration of the nation must be given, and business men, merchants, manufacturers, capitalists, bankers and our legislators must all recognize that we cannot shunt this question over on the farmers. We must as a nation unite with the farmers and find a solution for it, and no time is to be lost!

WHERE THE BLAME LIES.

THINK! The army unprepared, coal unprovided, railroads congested, the high cost of living increased—who is at fault? Let the people think!—Leslie's.

Who is to blame? The people themselves. They were played for suckers by all the demagogues of the country, and they eagerly jumped for the bait. The people wanted no preparedness, the people fought the railroads, the people denounced the coal companies and all other corporations; it was the people who accepted as truths the blatant untruths and sensations of the muckrakers; it was the people who applauded vociferously the blind leaders of the blind; but unfortunately the innocent who didn't run with the mob and who saw what would be the outcome, must now suffer equally with those who made these conditions a certainty.

"IS YOUR BUSINESS A CANDIDATE FOR OBLIVION?"

WHILE it may be a figure of speech to declare that "none are so dead as the living who are forgotten," it is, nevertheless, a palpable fact that no business can thrive or even continue to exist if it is allowed to become forgotten by the public. Business men who are now curtailing or stopping their advertising, or who are slowing down their activities—really running on "dead steam" and making no attempt to vigorously go ahead—are losing sight of the danger that when the war is ended they may be so completely out of the public mind that it will be impossible to get back their former prestige.

"Is your Business a Candidate for Oblivion?" is the heading of a forceful and timely editorial in a recent issue of the *Huntington (W. Va.) Herald-Dispatch*. Calling attention to a marked decline in the advertising of local merchants, the *Herald-Dispatch* proceeds to state some facts of universal application, which business men everywhere should read and ponder. Among other points made are these:

What is your business going to be after the war—an institution or a memory? Are you grooming yourself for second place—for oblivion—or for leadership? You may have anything you want—but you must decide now. Do you think that you could embalm your business for the period of the war and then resuscitate it at will? It can't be done.

This country isn't going out of business!

J. Pierpont Morgan the elder made his money "by always being a bull on the United States!" No matter what else went up or down, he always played the United States for a rise. Don't you think he would play the game the same way today—and don't you think he would win bigger than ever?

The country is going ahead just the same—with or without you—but don't you wish, just for your own sake, that you had a little more of that Morgan faith and optimism and the courage they breed?

This war period is the acid test! It's going to spotlight the big men in American business—the creators, the men of imagination, foresight and staying power—the men who were "always bulls on the United States." You cannot wait until after the war to join this select coterie of men who carried on. You will have to do it now. There is no cure for arrested development.

If your business is built on publicity—on the public's knowledge of you and its good-will toward you—are you going to keep that knowledge alive and that good-will active—or not?

Suppose it is difficult to get the goods—suppose you can't fill your orders now—suppose your facilities are all taken with war work—or you can't get enough cars to ship in—or the public isn't buying your goods just now—or any one of a thousand things—are you going to invite the public to forget you?

How much is your good-will worth—isn't it easily worth ten times your annual earning capacity? Do you want to forfeit an asset like that just because you can't cash in on it for a year or two, or maybe five? How long has it taken you to build it—and how much has it cost you? Do you want to buy it all over again? Do you think you can buy it any more quickly or cheaply the next time?

How long do you think your good-will is good for, anyway, if left to itself—even in normal times? And how long do you think it will be good for in these times, when the public has more to think about besides you than it ever had before? The public has a short memory. Are you willing to risk its forgetfulness—even to invite it? Figure it out in dollars and cents. Can you afford it?

The United States is not going to quit—why should you?

The calmest judges of affairs in the country prophesy a post-war period of prosperity for America such as the world has never seen! And every man who thinks knows that it is true. The figures of after-the-war trade are going to stagger even the optimists. A world is to be rebuilt, reclothed, refurnished and restocked—entertained, amused and educated all over again. The institutions that build their places in the public good-will now are going to do the job—at enormous profit and satisfaction to everybody concerned.

The world's present facilities are totally inadequate to the new job. The only sane course for American business men, therefore, is to build now for the future. The real leaders in every industry must do it—and will do it—because it is the price of leadership.

Businesses that are firmly entrenched in the public mind and the public good-will when the war ends are going to make fortunes while the others are getting started! Yours will not be one of them unless you lay the foundation now.

TRANSPORTATION THE VITAL FACTOR IN MEETING THE BUSINESS AND WAR SITUATION.

JAMES A. GREEN, president of the Matthew Addy Company, iron, coal and coke merchants of Cincinnati, in a letter to the *MANUFACTURERS RECORD*, says:

The coal question has come down to purely a matter of transportation. I have gone over a large number of mining districts last week, and find that they received only from 15 to 24 per cent. of the empty cars needed. Of course, last week there were flood and blizzard conditions in the mining regions, but things have been very bad for over a year. Now, the coal miner must live, and if, because of a lack of railroad cars, he is only able to work two days or three days in the week, then his wages have to go up to the basis of six days' work. You see the point?

That the lack of transportation or the facilities for distribution are primarily the source of most of our business troubles at present admits of no question. Coal production could have been increased under better conditions than were permitted to prevail, and coal distribution could, if adequately pushed last summer, have been handled to better advantage than it is possible for it to be handled under winter conditions. We have had the severest weather known in the last fifty years, and we had made no preparations to meet it. We were carrying no accumulated stocks in the way of coal, iron, steel or other things which make for safety. We were about as unprepared to meet the blizzard weather as we have been unprepared to meet Germany's war upon us. We cannot fully meet these conditions except by increased transportation facilities.

This is merely the fulfillment of what we have been urging upon our readers for the last ten years. The railroad breakdown was the inevitable result of the fight made against railroads. It mattered not how badly managed some of the financial operations of some railroads once were, the moment we began to club the railroads to death every blow struck against them struck an equally severe blow against our own individual and national welfare. The railroad is merely an expression of the nation's life. When we undertook to destroy the railroads we were destroying ourselves. In reality they are one and the same thing, practically synonymous terms, just as much so as Hell and Germany are today synonymous terms.

We cannot overcome this situation as to fuel and as to general business interests, now practically embargoed by the railroad breakdown, without a tremendous increase in cars and locomotives. There must be cars for every ton of coal that can be mined, and there must be close by a locomotive ready to haul it away. Until this is the case we shall have a continuation of fuel shortage, and all suggested conservation of fuel will be in vain in meeting the situation.

On the other hand, we can so increase coal production and distribution as to encourage the use of coal for the expansion of the nation's business activities and for the winning of the war. The two interests must be co-ordinated in their operations. Coal operators and miners must be encouraged in every way possible to increase the production of coal and to lessen the fearful waste which exists under the present system developed by the Fuel Administration work of shipping 50,000,000 tons or more of slate and other impurities at an enormous cost to the consumers and the country. We must build locomotives and cars, and build them by the utmost stretch of the power of the country. We cannot decrease business to the point where existing transportation facilities can take care of business without destroying business and thus bringing about a poverty which would make it impossible to buy Liberty Bonds and to carry on the war adequately.

Now that the railroads are under Government management it is absolutely in the hands of Secretary McAdoo as to whether the railroads will develop an efficiency equal to the needs of the country or whether existing conditions will continue. The

former would mean prosperity everywhere and would strengthen the nation to win the war. The other would mean increasing poverty and the weakening of our fighting ability. If Mr. McAdoo can guarantee to the coal operators of the country a car for every load which they can ship and a locomotive for hauling every train which they can fill, even the hampering restrictions thrown around the coal business, will not prohibit the coal miners and operators from fully meeting the needs of the country. Every day lost intensifies the situation.

Last spring the *MANUFACTURERS RECORD* urged that the Government should undertake a plan for mobilizing the car-building resources of the country and that every big lumber concern whose plant could be reshaped for the building of wooden cars should be encouraged to construct as many cars as possible, at the Government's expense if necessary. We cannot depend upon steel cars. The wooden car is not the equal of the steel car, but the difference between having a wooden car for hauling coal or highway material or iron and steel and that of having no car will be the difference between success or failure. Like the wooden ship, the wooden car may not be as good as the steel one, but wooden cars can be made a tremendous factor in saving the nation. There are hundreds of sawmills which cannot cut timbers big enough for shipbuilding which could cut timbers suitable for car building, and this car-building lumber could be assembled at many points in the South and Southwest, where even unskilled labor could be utilized in constructing the framework of open and of box cars as well as of flat cars, all of which are needed.

Upon Secretary McAdoo rests the responsibility of formulating and putting into operation a quick and effective way for increasing the supply of rolling stock of the country. We cannot expect to build many more miles of new railroad at present, but we can and should build cars and locomotives to make effective the tracks which we now have.

MAY GOD PRESERVE THE LIFE OF WOODROW WILSON.

"No right-minded man wants to kill the German Emperor or deal unjustly with the German people. Viewing the conduct of the House of Hohenzollern for many years, we are willing that the Emperor shall have his 'place in the sun,' but only on condition that a liberty-loving American sits beside him to see that his shadow never again brings death and desolation to any living thing."—Vice-President Marshall in Forum for January.

All Europe is one vast graveyard. All Europe is overhung with such a pall of death and agony as no human being could even four years ago have imagined possible. All Europe is an inferno which far surpasses the wildest dreams of Dante as to suffering and sorrow, and now America is to enter the awful struggle and millions of our soldiers shall have to face death and tens of millions of our people shall live in an agony of fear and suffering, and all of this is due to the accursed work of Kaiser Wilhelm.

But Vice-President Marshall thinks no "right-minded man" wants to see the Kaiser suffer death for these boundless crimes which make all the activities of hell seem tame, and Vice-President Marshall is willing for Kaiser Wilhelm under some circumstances to continue to "have his place in the sun."

May God in His mercy to this nation preserve the life of Woodrow Wilson!

SHOULD BE EITHER DECORATED OR SHOT.

THE Government ought to do one of two things with the spies and plotters. Either give them medals of honor and pensions or break their infernal necks.—Houston Post.

But the Government on the contrary, doesn't do either, and if it has ever shot one the news has been carefully suppressed. The announcement of the firing squads' work on a few spies might have a very salutary effect in suppressing spy work.

What Business Men Are Saying About Need of More Efficiency and Less Red Tape in Washington.

MANY business men are constantly writing the MANUFACTURERS RECORD about their experience in dealing with Government officials and the conditions of inefficiency with which they come into contact, but who do not want their names published for fear that this will discredit them for further work in connection with Government contracts or will bring down upon their heads the antagonism of officials whom they criticize.

It is a great pity that this situation exists. Every Government official should in such an hour as this welcome criticism of his own acts or of the acts of his subordinates, because only in this way will we be able to correct our mistakes and to rapidly build and equip our fighting machine. Therefore, instead of business men being afraid to point out the mistakes which they see, Washington authorities should invite criticisms and make certain that no business concern which criticizes any official or any system of Government work will in any way whatsoever suffer therefrom.

The MANUFACTURERS RECORD receives so many letters in which the writers tell of this situation, and yet ask that their names shall not be published, that it may be worth while mentioning a few interesting illustrations without giving the names of the writers.

Here are some samples:

One of the foremost coal and coke experts in the country in a telegram to the MANUFACTURERS RECORD said:

In addition to a direct increase in the cost of coal, most general consumers are paying a large indirect increase in the way of inferior quality because there is no incentive by proper price provision to improve the quality. The miner loads dirt which he formerly pitched out in the mine, the producer ships a percentage of dirt which formerly would not have been received by the consumer, the railroads are hauling dirt unnecessarily, and the consumer is paying for objectionable non-combustible material. There is probably 5 to 10 per cent. increase in the ash common in this district where coal is not commonly washed because of superior quality, while there is probably even greater increase in ash in those districts where natural impurities in coal make washing desirable.

This means that 50,000,000 tons or more of dirt are now paid for by the coal operators to the miner and paid for by the consumers, who not only pay their money for the coal, but for this dirt and slate and the transportation of this 50,000,000 or more tons of worse than useless stuff, which lessens the heating value of all the coal.

Shortly after receiving this telegram a large manufacturer in Baltimore, in discussing the subject, said that from one carload of coal which his plant had recently received he had had his men pick out six tons of slate, and even then a considerable amount of slate and other impurities were left in the coal.

Much of this is due to some of the unwise regulations of the Fuel Administration in naming a price for "run-of-mine coal," which tempts the miner to load dirt, and this compels many operators to sell dirt. The cost in the aggregate must run into the hundreds of millions of dollars.

Another letter bearing on the coal situation comes from a large coal operator intimately identified for many years with coal and coke production. Among the things which he says on the subject are the following:

Why the Quality of Coal Has Deteriorated and How Financing of New Equipment Has Been Made Impossible.

As to the complaint in regard to unusual amount of impurities in the coal, would say that I have no doubt there is quite a good deal of reason for making such criticism. In Alabama the mines that have been in operation year in and year out are practically all

equipped with washers. These companies, of course, are turning out coal that is the same quality, as far as impurities go, as they have always made. They, however, have been put to a very heavy loss and expense, owing to the fact that in loading the coal in the mines the miners have put an excessive amount of slate and rock in the coal, which they ordinarily pick out and throw back into the room. Owing to the shortage of labor and the independent attitude adopted by the miners, the operators have not been able to maintain the same amount of discipline as is usually the case. There is no excuse for the miners loading out the large pieces of slate and rock. The large price that the operators pay to the miners for getting out the coal takes into consideration the fact that the miners will throw out the large pieces of slate and rock. Of course, the fine pieces of slate and rock that are shattered by the shot have to come out with the coal and are eliminated by the washer. In a good many cases the washer loss has doubled. That is true at our own mines. Our washer loss is just twice what it was 15 months ago. If we attempt to dock a miner, according to the rules, for loading out unnecessary rock and slate, he simply quits and goes somewhere else. You probably know that here in Alabama we pay the miners for everything that is in the mine car; we pay the same price to the miner for any slate that may be loaded in the car as we pay for the coal. Of course, when this slate is thrown out by the washer it is just that much dead loss to the operator. It also reduces by just that much the output of the washer. The above covers the case of the mines equipped with washers. The operators are suffering, and not the public.

Owing to the shortage of coal and the high prices prevailing, a number of small new operations have been started in the last 18 months. Some few of them have railroad connections, and a large number of others, aggregating in output several thousand tons per day, are wagon mines. These mines have no equipment whatever for cleaning the coal. They suffer from the same troubles that the other operators do in not being able to compel their men to clean the coal of the larger particles of impurities in the mines. All of the coal from these new small operations is "run-of-mine coal." The coal is not put through any cleaning process whatever. It is further true that some of the mines that have washing plants have endeavored by the introduction of more machinery, etc., to increase output, and have gotten beyond the capacity of the washing plants. This additional tonnage has had to be put on the market as "run-of-mine coal." You will therefore see that probably more "run-of-mine coal" is being marketed in Alabama than for a number of years. Before the excessive war demand for coal started there was practically no "run-of-mine coal" marketed in Alabama. Almost all of the coal was prepared by being screened and washed.

I know of no way to correct this trouble now, except by an appeal to the miners, as a matter of patriotism, to load clean coal. The National Coal Operators' Association is putting out an appeal of this kind. It has also been suggested to the National Fuel Administration that some disinterested speaker, who is not connected either with the labor organizations or the operators, go out through the mining districts and make an appeal to the miners to load clean coal, explaining the burden they are putting upon the country by loading slate in the coal.

The uncertainty of the times is such, and the policy of the Government is so uncertain in its relation to the coal operators, that it is impossible for anybody today to go out and finance improvements at coal mines which would either increase the output or improve the quality of the coal by putting in new washing and cleaning machinery.

It is also true that, owing to lack of knowledge on the part of the Federal Trade Commission, they at first gave Alabama a price of from 15 to 25 cents per ton less on prepared and washed slack than they gave on the dirty unprepared "run-of-mine coal." It took the Alabama operators 60 days to explain to the Fuel Administration and the Federal Trade Commission that the washed slack coal was very much more expensive to produce and was much higher in heat value than the dirty "run-of-mine coal." While these illogical prices were in effect, I have no doubt a number of producers shipped "run-of-mine coal" instead of passing the coal through the washer, paying from 25 to 50 cents to have it washed, and then getting from 15 to 25 cents per ton less for it than they would have gotten if the dirty "run-of-mine coal" had been shipped.

The suggestion that has been made as to offering a premium for thoroughly clean coal would probably be well and good for those mines that are equipped with washers. I do not think it would help the proposition with the small new mines that have no capital to put up a plant for preparing the coal. The cost of material is very high and the delay in building a plant is so great that no one wishes to undertake it if possible to avoid it. The only thing that could be done to improve the coal business would be some help from the Government in trying to get the men to do what is right in loading the coal properly in the mines, and also to give some definite assurance to the coal operators of protection in spending money to prepare and clean the coal; also some way of helping them to finance these improvements

if they should be undertaken. The Government needs a well-considered, well-worked-out, definite coal policy. It has adopted such a policy with reference to the production of wheat. Certainly coal is as vital as wheat.

We have certain improvements in mind for our own coal operations, but we are not willing to go ahead with the great uncertainty prevailing as to what the Government may or may not do. All of the coal in Alabama should be prepared to be the most efficient, but I do not believe you could induce anyone to spend money for this purpose now, nor do I believe that anyone could get the money if they were inclined to take the chance.

This situation is one of the most serious confronting the country, and yet nothing very intelligent seems to be in mind, as far as the Fuel Administration is concerned, for bettering conditions.

A discussion of the same subject from a somewhat different angle is from a man widely known in the business circles of the country for remarkable success in mining and kindred operations and for always being able to intelligently diagnose a business situation. His letter, in part, is as follows:

My view about fixing hours of labor is that Mr. Garfield is mistaken, but I think honestly mistaken. Of course, the hours set do not affect the digging of coal. That work is always tonnage work, and not paid by hours. The men affected by the installation of an eight-hour day are the drivers, door men, tippie men, weigh men, blacksmiths, car mechanics and others of similar character.

We think that these men in eight hours will do 80 per cent. of the work they have done in 10 hours. Mr. Garfield thinks they will do 100 per cent. because they will be fresher. That involves a great deal of argument. It seems to presuppose that a man does so much work in eight hours and none at all the last two. It also presupposes that when the eight-hour day is made effective it will necessarily be spent in rest. Some of us who know the habits of our negro miners may believe, on the other hand, that it will be spent in occupation which might debilitate quite as much as recuperate. The time would probably be spent largely in loafing.

Passing by the human factor, it admits of no argument that machinery cannot do as much work in eight hours as it does in ten, and here alone is a fatal error in the Government's calculation. You cannot hoist as many trips of coal out of a slope and handle them at the tippie and dump them in eight hours as you can in ten; that is, you cannot do so where the equipment is already working to its normal capacity in the case of a fully developed mine. Neither can you operate switch engines to take away as many loads and bring back to the mines as many empties in eight hours as in ten.

The operation of an eight-hour day to my mind suggests the absolute necessity for a double shift, making 16 hours operation. This, of course, would demand a great increase in the number of men, and yet not so many as might be supposed.

I think I am safe in saying that not more than 70 per cent. of the coal miners of this district are at work on the average. I know that in our own case the proportion ranges between 70 and 80 per cent., and I think our men are more regular than most others.

To run double shift would mean, on the eight-hour proposition with penalty clause attached, that every man must work eight hours per day; then that would mean 150 per cent. of the present number of miners in the district, which, if they all worked every day under penalty, would, with 50 per cent. increase in the actual number of men, give double the number of men actually at work.

Where are these additional men to come from? An extremely foolish and unfounded sentiment has been developed in this district, and doubtless in others, against the use of convict labor in mines, protesting against its inhumanity. This is perfectly absurd, although it has been taken up by various sociological organizations who have not been able to see that it proceeds entirely from the miners' unions, who want to monopolize the work so that they may have the consuming public under their thumbs and fix wages and working conditions as they please. The fact that there are thousands of union miners anxious to turn out the convicts and take their jobs is a sufficient proof without further argument that there is no inhumanity in the employment of convicts in mines per se.

I would go further and insist that as the conduct of war demands a full output of coal for the requirements of our own industrial works, railroads, navy and ocean transportation generally and for the requirements of our Allies in Europe, we should put all German prisoners to work, and if needs be bring 100,000 of them from England or France in steamers returning, otherwise empty, after taking over our troops and supplies. It would be so much easier for us to feed them in this country than it is to take up the ship room by sending the food for them over to England or France. It would certainly be better treatment to let them work for their keep in a lawful occupation, such as coal mining, than it is for the Germans to force Belgians and Italians to dig trenches and other similar work within range of the firing line, as they do.

A Western concern writes:

"We do hope that you will continue your splendid

articles and, if possible, get the facts to Washington. We are for this country first, last and all the time. We propose doing our bit in every possible way. We have our money invested. We have thousands of dollars tied up in work under construction, but the existing conditions and the existing regulations and the ruling on the part of the Fuel Administration have us badly tied up. However, we hope for the best."

But here are some of the things of which this concern writes:

"It is a well-known fact that France has a far less supply of coal than America, yet France has millions of undeveloped water-power which if developed would mean a saving of coal here due to less exportation and a material saving in France. France is making an effort to develop these water-powers. We have in our factory French orders for 20 turbines, running in size from the smallest up to the largest size we build, but we have communications from the Adams Express Co. that it is impossible to secure bottoms for the transportation of this material across the water.

"We have under construction 20 spiral case units for the United States Reclamation Service, and have received notice of award of another contract consisting of two spiral case turbine units, also for the Reclamation Service. These turbines are to be used for the development of hydro-electric plants, which, in turn, will furnish current to drive pumps for irrigation projects, making possible the development of new arid lands. This information we have given to the Fuel Administration and have received a telegram stating that this plant is not exempted from the recent order. Therefore, we have been closed five days and will remain closed every Monday for the next ten weeks. Incidentally, we do not use coal in operating our plant, but natural gas, and how we can conserve gas by closing down we do not know. You cannot put gas in the shed and keep it for future use, and you understand that turbines for the development of water-power are, according to this ruling, scheduled as non-essential. Think of it! Non-essential to develop water-power!

"Understand, we are in sympathy with every patriotic issue, but it surely goes against the grain to know the very important fact that the development of water-power conserves coal, that every delay in obtaining supplies, in being unable to produce promised water-wheel equipment, and the inability to ship repair parts due to the embargoes to Eastern parts of the country, is hampering the very industry and the very essential that is most needed at this time, namely, coal.

"If there was only some way of bringing the full realization of these facts to the authorities in Washington! There are hundreds of commodities manufactured in this country which are really non-essential, but when on one hand we prohibit the use of coal and on the other prohibit the manufacture of that class of machinery which will relieve the consumption of coal, we are, to say the least, somewhat stumped."

In another letter this same concern suggests that their letter was not written "for the purpose of reporting personal trials or tribulations or from any lack of patriotism, but only with the hope that it might assist the MANUFACTURERS RECORD in understanding the hampering restrictions which are thrown around business."

And the writer adds: "Again I want to say we are Americans; we are for this country first and last, but it does go against the grain to have rules and regulations laid down by individuals who show such a lack of competency for positions they hold."

From another manufacturing concern producing machinery which greatly economizes the use of coal and secures better results in the consumption of coal, and thus makes for coal conservation, machinery which has been in use for many years in many of the leading establishments of the country and adopted by the Government itself, we have a letter which tells of spending two weeks back and forth from one official to another in Washington, through an endless amount of red tape, until in despair the official of the company practically gave up trying to conclude business with the Government, although every official to whom the matter was presented frankly commended the equipment, but claimed to

be so tied by red tape that no one was in a position to give an order. And after going through all of the details and contrasting this red-tape routine in Washington with the celerity of doing business with many of the greatest corporations of the country, the writer adds:

"With such a condition of affairs existing, would we be warranted in coming out in the open and jumping on the Government at Washington? You fully appreciate what my impulse is, but, all things considered, what is the expedient thing to do?"

The MANUFACTURERS RECORD is not at all unmindful of the tremendous difficulties under which officials in Washington have labored since the beginning of the war. It fully realizes the difficulty of creating a great business organization, and it would give full credit for all that has been achieved, and much has been done, but it would at the same time help Washington to see itself as the business people of the country see it.

These business men are not criticising Washington or officialdom in Washington from any narrow personal motives. Their letters are simply expressions, sometimes almost in despair, as to the outcome of the business activities of the country by reason of the difficulty of doing business in Washington and of the circumlocution and of the red tape of the men who become enmeshed in Washington red-tapeism.

It is not President Wilson's task to deal with these petty details of red-tapeism, but such a task might well be assigned to a few great business leaders, who, under a bill which Congress might pass, would in connection with President Wilson and acting for him have authority to cut to the quick every red-tape system which ties the nation's activities and let the life of the nation have free rein and full speed to do its great task to win the war.

The extracts from the letters we have published are only typical of what we hear from all parts of the country from many of the foremost business men whose patriotism is above party and above profit.

THE SINKING OF THE FIRST TRANSPORT WITH AMERICAN SOLDIERS.

MONTHS ago the country was warned that Germany's policy would be to permit an American army to be landed in France and then to make a desperate effort by increased submarine activity to cut our line of communication and leave our army stranded in France, lacking food and munitions.

The sinking of the *Tuscania*, the first transport loaded with American soldiers, marks, we fear, the beginning of Germany's desperate campaign along this line.

Every man who was thus murdered by the sinking of this transport was murdered by the most ruthless power ever known on earth, carrying on a definitely planned campaign of murder, for this war is not like any other war in human history. It was definitely planned as a war of murder and of ruthlessness and for 50 years the murdering machine has been under construction that it might carry frightfulness to the world.

The men who died as our first torpedoed transport sunk beneath the waves died heroic deaths for the salvation of the world from damnation under German rule. Their death should call to the heroic spirit in every American man and woman.

The people of this country will not be frightened by Germany's effort at frightfulness. Every attempt made by Germany in this ruthless campaign to destroy our soldiers and sailors will only stir to its deepest depth the fighting spirit of American people. We shall not halt because many of those that we love will be called to death. We shall look upon their death as the death of men dying that others may be saved, and over their graves the people of America will build a monument of everlasting love and appreciation.

To those saddened by the death of loved ones the nation will extend its deepest heartfelt sympathy, and men and women everywhere will mourn with those who are thus called upon to mourn, but through the nation there will run the spirit of

honor to these men and of undying appreciation of their work.

We shall face many other losses, and if we are wise we will steel our hearts in advance for the great struggle upon which we are just entering. It should be the supreme duty of this country to say to the men who are going to the front: "We recognize that you are risking your lives for those of us at home, but we guarantee to you that this nation will make certain that you shall have every possible advantage, every comfort and convenience, every strength in munitions, in medical attention, in hospital care, which it is possible for the richest nation on earth to furnish to these saviors of civilization."

The fathers and mothers who are giving their sons to this war are looking at it from a narrow point of view if they think that they are giving up more than their sons are giving up. These boys, full of life, with all that life means to them as seen in the brilliant anticipations of youth — strong, sturdy, loving life, loving their loved ones, looking forward to making homes for themselves — are giving up far more than mothers and fathers are giving up, however boundless may be the love of mothers and fathers. They are giving up their loved ones, but their loved ones are giving up the anticipation of having loved ones of their own and of all other joys of life which fill the imagination of the young.

It behooves us, therefore, as a nation to recognize the tremendous sacrifice which these men are making and to see that this nation does all that human power, wisely directed by the most efficient men in the nation, can do to safeguard their health while in camp, to provide them the amplest facilities when in hospitals, to back them up with the best training which it is possible for men to receive, that they may be prepared as fighters to do their work effectively and powerfully and to furnish them with everything in the way of clothes, of food and of limitless munitions, which will help to insure their lives and their victory.

He who does not think of these men in this way and who is not willing to demand the utmost stretch of every ounce of energy in the nation to provide these things will be a contributor, passive or active as it may be, to the death of many men whose lives might otherwise have been saved.

PEAT AS FUEL.

THE shortage of fuel should cause Massachusetts to make a careful study of the possibilities of peat in that State as a substitute for coal, as strongly outlined many years ago by the late Edward Atkinson, Boston's great statistician and political economist. Mr. Atkinson was a thorough believer in the great potentialities of the peat beds of Massachusetts as a source of fuel supply sufficient to make that State practically independent of coal-producing States for its fuel supply. His letters on the subject published many years ago would prove very interesting at the present time if New England papers would bring them out, for doubtless they can be found among his files.

About the time that Mr. Atkinson was writing so much on the subject, Mr. Courtney DeKalb suggested to the MANUFACTURERS RECORD the great fuel potentialities in the peat of the Dismal Swamp of Virginia and the Carolinas.

We must prepare early this spring and summer for a very large production of fuel. The greatest possible output of coal is necessary, but whenever other substitutes in the way of wood and of peat, if the latter be available, can be used, we must stock up this spring and summer in order to lessen the burden upon the country next winter.

The coal supply has been growing steadily shorter for several years in proportion to the needs of the country, and he who has not watched this situation failed to see that the utmost possible production of coal and facilities of distribution were two things which would be put to the severest test during the present winter.

We see now exactly what many saw a year ago, but which many others, especially in Government life, failed to see.

Called to the Holiest and Sublimest Task to Which Men Ever Dedicated Their Lives.

GERMANY'S game of deception matches its game of war. The same methods adopted to create its mighty fighting machine, were adopted to make its diplomacy world-wide in its ramifications, based on the foundation of deception and lies. Honor and truth are unknown to Germany's military machine. An important part of this campaign of lying and deception has been the reports which have been widely circulated almost from the beginning of the war, about dissensions at home, about lack of foodstuffs, about riots and mutinies.

Most of this is a part of Germany's game of deception. It has been promulgated for the express purpose of trying to deceive the Allies and the United States in order to make us feel that Germany was near a collapse and, therefore, there was no need for great preparations for war.

Recently the papers have been full of stories about riots in Germany and Austria, just as a year or two ago they were full of the stories about the starvation of the German people.

We can place just as much reliance in these stories as we can place in the honor of a German officer who would pledge his honor when on parole and violate it the moment he got a chance. To the people connected with the German war machine, honor is unknown; bribery, deceit, lying, outraging, all the awful crimes which can be instigated or suggested by a fiendish cunning that surpasses all that hell itself has ever known, are the things which we must expect from German autocracy and German military rule. If by creating the impression that Germany is weakening, German people starving and German laborers rioting and demanding peace, that great military war machine can create a false sense of security in this country or on the part of the Allies, we may rest assured that the utmost power of Germany's ingenuity would be used to advance such tales of deception, and when they found that we had been "played for suckers and had jumped to the bait," they would gleefully gloat as Bernstorff did, over our weakness, and as Germany did over the sinking of the Lusitania.

The vilest criminal who ever lived, who might have used his wiles to deceive the innocent for the purpose of destruction could never match Germany in this respect, for it is not that crimes are committed individually, here or there by Germans, but it is the German nation as a whole that has created this campaign of deception and barbarism. In the MANUFACTURERS RECORD of July 19, 1917, warning the public not to be caught napping by Germany's campaign of lies, designed to keep us from preparedness, it was said:

"Germany will fill the world with stories about her inability to continue the war, or at least such rumors will percolate through the world from German sources for the express purpose of causing this country to halt in its war preparations. Do not believe anything Germany says until she has unconditionally surrendered. The game of seeking to deceive us and our Allies will be played to the utmost extent of the power of German diplomacy."

We repeat this warning with all the emphasis that we can add to it.

Moreover, when people think that Germany cannot hold out much longer they should bear in mind the fact that Germany owns a tremendous compact area including Austria, Hungary, Turkey, Roumania and much of Poland, having an aggregate area of nearly 1,500,000 square miles, or about one-half the area of the United States, in a solid body, rich in agricultural, mineral and oil resources. There are 225,000,000 people living under the absolute domination of the German war lords, who are worked to the last ounce of their strength for the production of foodstuffs and munitions, and the making of soldiers. In this population, Germany has about two and one-fourth times the entire population of the United States, and in our population, we have millions of alien enemies, who are a liability instead of being an asset, while in Germany and the vast territory controlled by Germany, every man, woman and child is, by the power of Germany's war

machine, made into an asset for the maintenance of the war.

Let us not forget, therefore, the magnitude of the task, nor forget that three and one-half years of war, though it has caused the death of millions of Germans, has strengthened and developed every possible weakness that at the start might have existed in the war machine, and that today Germany has mighty armies of men long trained in desperate fighting.

To minimize the situation would be unspeakable folly on our part. The issue of life or death, individually and nationally, is before us. We could not as weaklings or cowards, withdraw even if we wanted to do so. There is nothing left for us to do but to fight, and as a country to realize the task, and heroically we should rise to meet the issue. But if we minimize the magnitude of Germany's strength, we will not prepare for a struggle as great as that which we face. Our safety, our lives, our victory, individually and as a nation, depend upon meeting, with boundless enthusiasm, with heroic courage, with never-halting optimism, the task before us, and we should enter into it with an abandon which knows no limit, with the utmost stretch of energy and determination, and yea, if need be, with an unquenchable spirit of loathing of Germany itself, as we contemplate the horrors of German warfare, and the millions of our own loved ones who must risk all that is dear in life, except honor itself, to stay the inhuman barbarians who seek to overrun the world.

We should thank God that we have the men and the courage to meet the issue. We should thank God that we as a nation, have been deemed worthy by Him to be called to do His bidding in saving Christianity and civilization from domination by barbarians, in saving the innocent women and prattling babies from ruthless destruction, in saving our country from that spirit which gloated with a more fiendish glee than was ever known in hell itself, as the women and babies were fed to the sharks by Kaiser Wilhelm and his cohorts.

This is the task which is before us. To this the nation dedicates every atom of its strength at the call of God and humanity, and while it realizes the tremendous burden, and the terrific sacrifices which must be made, it feels the same thrill which a mother or a father would feel when their strong, sturdy boy, at the risk of his own life, grappled with and destroyed a brute who was attacking an innocent baby or its mother.

To this task the nation, voicing the call of God, calls its people to sacrifice that it may serve, that it may save these women and children, that it may save this Land of Liberty to the generations yet to come, that it may help save heroic Belgium, France, England, Italy, and Serbia, as they have thus far saved us, in their terrific struggle against the powers of the Prince of Darkness.

For every soldier called to battle the nation prays, "God be with you, God protect and keep you as you battle in God's name for humanity and civilization."

This is our task, this is the supreme issue before us, the highest, the holiest, the sublimest work to which men have ever dedicated their lives, the nearest to that sacrifice of the Son of God upon Calvary, for mankind, that the world has ever known through the long ages since the beginning of time.

"AND THEY LAUGHED HIM TO SCORN."

SENATOR H. C. LODGE, in a letter to the MANUFACTURERS RECORD, referring to a recent editorial about the death of Maj. A. P. Gardner, who was the son-in-law of Senator Lodge, writes:

I assure you that we are very much gratified by what you so kindly say, and it is true, as you point out, that he has given his life to the country, a victim of the lack of preparedness and to inefficiency, against which he had fought so long.

For years Mr. Gardner was vigorously criticized

in and out of Congress for his demand for efficiency and preparedness. A little story from the Daily Telegraph of Bluefield, W. Va., illustrates the point; it is as follows:

Congressman Gardner died in the uniform he loved and in the service of his country. He served well his people for 15 years in Congress, and was one of the most distinguished members of the House, but when war was declared he promptly resigned to enter army service. Such men are splendid foundation stones for an invincible republic and such men's examples inspire posterity to patriotic emulation. Our Washington correspondent, Charles Brooks Smith, in a news letter recalls an incident of interest as follows:

"They have been reminiscing in the cloakrooms at the Capitol about the late Major Gus Gardner, who voluntarily closed a Congressional career of 16 years to go to war. One incident recalled by many a member who laughed in Gardner's face when it happened, and wishes deeply that he could recall that laugh now, was President Wilson's slap at Gardner in his annual address to Congress, December 8, 1914. On the subject of national defense the President said: 'It is not new. There is no new need to discuss it. We shall not alter our attitude toward it because some amongst us are nervous and excited.' And the whole House turned and laughed at 'Gussie' Gardner."

We are not surprised that they would like to recall that laugh now, for the subject of their ridicule is beyond the ken of sneers and jibes, and went there because he loved his country and heard its call, while the others still haunt the cloakrooms and haggle.

His brothers held the banks of Rome,
And fell upon the Persian sword
When Xerxes threw his boar'ded horde
Against the Lacedaemon will.
They do not die; such men as he
Are scions of eternity,
The children of the stars. His name
Is song deep in the throat of fame.

Such spirits as Gardner's are of all time. They come to teach us the splendid game of sacrifice and then go home. May more Americans learn the lesson!

A NEW FIELD FOR PHILANTHROPY— PUTTING IDLE ACRES TO PRODUCING FOOD.

IN a striking, thoughtful advertisement in this issue, under the title of "Wake Up America!" the development department of the Seaboard Air Line Railway concisely and clearly states the emphatic need that men shall turn in greater numbers back to work on the farm, to the cultivation of the soil, to the breeding of livestock, the raising of poultry and dairy cows, all looking to a greater production of food supplies for this country and our allies.

Farmers, instead of sending their boys to agricultural colleges and training them as intelligent producers, have been educating them as lawyers, doctors or in other professions; and this, in the past, has served to materially affect the proper development and expansion of our farm work.

Increased prices, however, bringing with them greater inducements to remain on the farm, will no doubt help to change this situation. But even while men engaged in other lines are being stimulated to return to the farm on account of the higher prices, the numbers are far from being what is required in the present emergency.

The Seaboard Air Line suggests that wealthy men, or philanthropists, who have been giving in the past their millions for building libraries and colleges, could now make a much better use of such money by expending it to meet the problems of food production. It is suggested that this could be accomplished by such men securing large acreages of land, clearing it for farms, building the necessary farm homes and stocking them ready for work, and then offering them for sale to worthy, capable men on small payments.

This suggestion of the Seaboard is based upon results which they have accomplished, in a limited way, along its line. These results, the officials state, have been sufficient to justify the merit of this method, but the company has not been able to undertake the work on a scale which can materially increase national production so vitally necessary at this time, nor to make such liberal terms as would attract men who are desirable in every way but who have no money to make a start.

Here, therefore, is an opportunity where men of

means can finance a plan of efficient agricultural development that will not only be a service of tremendous value to the nation in its endeavor to increase the food production of the country, but at the same time it will add to the permanent wealth of the nation by creating thriving farming communities out of lands that are now going to waste.

It is pointed out that extensive areas are available in the Southeast that are ideally situated for such development, because here there is a growing season of from 250 to 350 days a year. Those farming in this section can obtain two, three, and even four crops a year from the same land, and livestock can be produced more cheaply than elsewhere, so that the advantages offered make this section one that can, under such a development plan, produce quickly and in large volume the greater quantities of food-stuffs that are so essential in this hour of need.

No more vital question is facing the nation today than that of adequate food supply. This country is blessed with lands capable of growing sufficient food to feed the world, but to more adequately meet the situation will require the supreme efforts not only of those engaged in farming at present, but also of capitalists and men of means who, by undertaking the necessary financing, can make possible the bringing into productivity millions of acres that are now lying idle and the growing of food crops and the raising of livestock on a much broader scale.

The Seaboard is doing a splendid work in centering attention upon this opportunity.

UNSHACKLE AMERICAN BUSINESS IN ORDER TO WIN THE WAR.

WHEN Dr. Garfield was made Fuel Administrator he stated that the whole coal situation was a psychological one, and warned the people not to buy coal until he had fixed the price. These two statements definitely fixed Dr. Garfield's incompetency to deal with such a situation, because they displayed a lack of knowledge on the subject so surprisingly great as to show that he knew absolutely nothing about the proposition which he had in hand.

When Dr. Garfield issued his order for a five-day closing of factories and office buildings and for closing on ten successive Mondays, he stated that factories which had coal should not be allowed to operate because it would be giving them an unfair advantage over factories which had no coal. And he said that manufacturers whose men were thus thrown out of employment should be patriotic enough to pay these men wages for work which they did not do, thus advancing a frankly socialistic, indeed anarchistic, doctrine calculated to prove of tremendous harm to the country by creating a spirit of hostility on the part of employees to employers, for it was out of the question for the majority of employers to pay idle workmen.

Dr. Garfield also decided that factories run by wood, hydro-electric power or by natural gas should not operate, even if their operation had no effect upon the consumption of coal. These were some of the things which caused intelligent people of the country to vigorously assail a movement.

Dr. Garfield now reverses himself. He authorizes a discontinuance of fuelless Mondays so far as the South is concerned, and in this way he gives the South an advantage over other sections entirely contrary to the principle which he had advocated when he insisted that factories having coal should close down so as to have no undue advantage over factories without coal. In this action he also shows that the power of criticism which was presented to him, to the President and to Mr. McAdoo as to the unwisdom of the scheme has had its effect. Had there been no criticism there would have been no modification of his regulations. The Navy Department protested against the regulations when first issued in order to enable factories working on navy goods to continue operation. The Army Department protested in order that factories working on supplies for the army might operate, and gradually it became necessary to make so many exceptions at the request of the Navy Department and the Army Department that it was soon seen that the order was evidently prepared in a panicky frame of mind and issued without proper study of the situation. Ac-

cording to reports from Washington, Secretary McAdoo has been opposed to the order, and perchance Secretary McAdoo has had something to do with the rescinding of the fuelless Mondays so far as the South is concerned.

These are a few of the simple facts in the case. A mistake was made in calling the coal situation a psychological one. A mistake was made in warning people not to buy coal. A mistake was made in the character of the order for heatless days, and it was not until the most vigorous criticism was aroused that Dr. Garfield was willing to show any evidence that he had made a mistake, and he is now attempting to change these conditions. Had there been no criticisms the public might again have been treated to many similar unwise regulations calculated to do infinite harm.

The view of the MANUFACTURERS RECORD on many of the regulations now prevailing in Washington is in entire sympathy with the statement made by Mr. Walter Clark Runyon, president of the Struthers Furnace Co. and of the Struthers Coal & Coke Co., in which, in referring to present conditions, he writes:

"Transportation is the solution. I would abolish all the commissions and place that matter in the hands of the railroads, first repealing the Adamson law and next giving the railroads the financial assistance necessary for them to equip and handle the business of the country."

American business men are capable of meeting all the emergencies that have arisen, but they cannot do so when hampered by politics. Get a proper spirit of patriotism into the labor element of the country so as to avoid strikes (we have found our men patriotic to the last degree), and turn American business men loose and you will see how quickly they will meet the situation. If the country is kept prosperous the Government will not lack money to win the war. Knock off the shackles from business and let Congress show confidence in the intelligence, honesty and efficiency of our people, and we will surprise the world."

CRITICISM NOT FAULTFINDING — A CLEAR STATEMENT OF THE CASE.

[Iron Age.]

IT is a natural coincidence that criticism of the administration of the war should come at a crisis. Etymologically, the words are akin, both coming from the same Greek root, meaning to judge, discern, separate. Criticizing is judging. A crisis is a point of separation, a time when things are going to go either one way or an altogether different way. The American people have been indisposed to criticize or to judge, but when events show that a crisis has been reached, when undesirable things have accumulated so as to form a definite menace, the right to criticize is asserted.

It is of the utmost importance, not merely that the word criticism should be rightly understood, but that the true bearing of the action should be apprehended. Criticizing is not finding fault; it is rendering judgment. Criticism recognizes good and bad points equally. In the matter of conducting a war it is necessary to get the proportion of things. Apart from the disposition of some Washington circles to regard criticism as faultfinding, there is evidently a failure to grasp the proportions. There has been clearly shown a conception that inasmuch as certain great things have been accomplished in preparing for actual warfare, various delays and slips should be overlooked or condoned, as being unimportant in proportion to the things that have been accomplished.

That is not the spirit of criticism. The painting is not approved for its good points if it has faults which a painter, skilled in his art, could have avoided. Now, criticism of certain departments runs largely to the direction that certain things could have been accomplished and were not. That other things were accomplished does not justify the omissions.

Much of the criticism that has been made has been accompanied by statements of how the thing criticized could have been avoided. Nearly all the

criticism seen is distinctly constructive in character, and the American people will not tolerate a propaganda that such criticism should be withheld. Its right to criticize, to judge, to discern, to separate, is unquestionable, and now of all times the people must uphold that right. It is vastly more important now than at any other time.

The greatest single criticism is that preparations for waging war have been woefully interfered with by Government red tape. That is a specific and a constructive criticism. There is not a successful business house of any magnitude today that has not rid itself of a great deal of red tape in the past few years. The abolition of receipts for payments made by check is one among scores of examples that could be cited, conspicuous from its broadness of application and simplicity. Red tape can be largely done away with, as business men know from their own experience. It is for the American people to demand that this and other reforms plainly called for should be carried out immediately.

HOW EVERY MAN CAN HELP WIN THE WAR.

Harlan A. Young & Son.

Farm, Mineral, Ranch, Orchard and Fire-Clay Land in Missouri.

Versailles, Mo., January 29.

Editor Manufacturers Record:

An hour ago I sat down to order 100 copies of Rev. Newell Dwight Hillis' lecture in pamphlet form, entitled "Germany's War Plans and Her Atrocities in Belgium and France," when it occurred to me to see some of my friends and see if they, too, would not like to send.

Starting over to see my banker I met a doctor and a farmer, both of whom ordered 100 copies for distribution; then the banker and a brother real estate man added to the list.

Enclosed please find my check for 500 copies.

We are making a county schoolhouse campaign, and it is our intention to hand these pamphlets out with instructions to read and pass on to the nearest neighbor, thus making one pamphlet cover as much ground as possible.

Sincerely yours,

A. H. Young.

In every community some leader is needed to organize and crystallize public sentiment, and this is what Mr. Young is doing. Not until we fully realize German atrocities and our own danger will we adequately understand the desperate reality of this war and what it means to each one of us individually. Not until then will we understand why food conservation is our duty and our privilege, and why we must buy Liberty Bonds and help in every way to the last ounce of our strength. The pamphlets which Mr. Young is distributing will, wherever read, awaken latent patriotism and make hotter the fires of even the most burning patriotism.

Are you helping in your community to lead the forces of right and awaken your neighbors and friends to the meaning of this war?

THE TRADE ACCEPTANCE QUESTION BEFORE THE COUNTRY.

A LEADING business man, in a letter to the MANUFACTURERS RECORD, presents an interesting summary of the arguments in behalf of trade acceptances. Writing on this subject he says:

I wish you would seriously study the trade acceptance question. Here is the gist of the argument:

Business is now done by the open account system. This means that the current credits of the industrial and mercantile world are tied up in an unavailable form. The trade acceptance means the closing of their accounts by the giving of a piece of paper in which the customer acknowledges his indebtedness and "accepts" the paper for payment at such and such a place, at such and such a time. These trade acceptances are immediately negotiable, so that the merchant and manufacturer can thus liberate his capital and set it to work again. Open book accounts have been referred to as "frozen credits."

The Federal Reserve banks are beginning to be burdened with notes with Liberty bonds attached. People have not been able to pay their Liberty bonds and are carrying them on credit. This is a vicious circle, which, enlarged and increased, as it will be when the next Liberty bonds are issued, will prove deadly. But if Congress passed a law that every account should be closed with trade acceptance, then all credit would become fluid and liquid. Merchants and manufacturers, instead of having capital frozen up, would have it free, so when the next Liberty bond issue comes along they would be able to pay for their Liberty bonds in cash.

PRESIDENT WILSON'S HIGH TRIBUTE TO THE VALUE OF CRITICISMS AND SUGGESTIONS.

PRESIDENT WILSON is confounding those who have assailed Senator Chamberlain and others who demanded greater vigor and efficiency in the prosecution of the war by heeding these criticisms and suggestions, and thus showing that he recognizes their justness and friendliness, and is now completely reshaping the war machinery of the War Department.

The revolution which has been wrought in the War Department in the last two or three weeks is as comprehensive and as far-reaching as the critics of inefficiency could possibly have anticipated a few weeks ago. It is the greatest tribute that President Wilson could possibly pay to those who criticized inefficiency.

Surrounded as he was by people who have been inclined to keep him in the dark as to what was being accomplished, and who have told him the optimistic side of many situations, it was not possible for President Wilson to know of the inefficiency which was prevalent until the public demanded a change. Quick to recognize the proof of inefficiency he has already made such radical changes in the War Department as to completely revolutionize its operation for the better.

Inefficiency has been supplanted, in many cases, by the highest efficiency. Those who so bitterly assailed these criticisms against inefficiency are, therefore, by President Wilson himself left hanging in the air without any solid ground on which to rest. The President himself has wrought the change which the country was so eagerly asking him to make, and which the hidebound partisans, who thought that any criticism of inefficiency was a criticism of President Wilson, were opposing. They were saying that all was well. President Wilson has proven to them that they were badly mistaken, because seeing that all was not well he is now aggressively seeking, through these radical innovations, to produce a condition where it may be feasible to say that all is well.

The Boston Transcript in commenting on the remarkable change which has been brought about during the last two or three weeks in Washington, and the tremendous activities for efficiency which have now supplanted the inefficiency of the past by the call to Government work of many of the foremost men of the country, says that Secretary of War Baker will shortly go abroad, and, it is understood, for the purpose of making a first-hand study of the situation. In discussing this, the Transcript says:

Meantime it is easy at this distance to see the ripening fruits of the joint call of the Congress and the country for the correction of the shortcomings which the light of truth about the conduct of the war has laid bare. The United Press sent out an announcement on Sunday that the Secretary of War would soon be sent abroad on an important mission. No denial of that announcement has been made or will be made. For obvious reasons the time and place of Mr. Baker's departure will be withheld, but when he arrives on the other side we shall know it, and the reason for his somewhat summary relief will not be far to find.

The War Department is today in a state of flux. It is undergoing reorganization from top to bottom. The president and the Congress appear to be participating in a footrace. Which will cross the line first is not yet apparent. Nor is the country much concerned. It was the reorganization of the War Department that the country demanded as a first step and co-ordination of effort without which we cannot hope to win the war.

The president has quadrupled the number of his conferences. Many announcements may be expected within the next few weeks of all sorts of changes. But the drive for the truth must not be abandoned. Senators who have the courage to tell it and the patriotism to refuse to play politics in the way they tell it deserve the support of every citizen whose heart is in the war and who is blessed with "the fighting heart" which Washington until now has so sadly lacked and so sorely needed. By telegram and by letter it is possible for the stay-at-homes to speed up the war and strengthen the morale of the leaders along the Washington front who are going "over the top" for the truth.

What the nation wants is war, aggressive, tremendous war, pushed with the utmost limit of the nation's power and resources, developed and guided by the greatest constructive leaders in America, for the nation knows that otherwise the cost in lives will be tremendously increased by years of long-

drawn struggle. War, war, war to the utmost stretch of our power, war guided by men as forceful and vigorous in the war spirit as this country ever produced, is what the country has been demanding, and what, to the great credit of the Administration, is now being inaugurated by the radical changes which are being made. These changes are the unanswerable proof of the justice of the nation's call that the incompetents and procrastinators should be supplanted by efficiency.

President Wilson himself, to his great credit, thus shows that he fully recognizes the justice and wisdom of these criticisms. All honor to him for doing so.

"EVERY BUSH AFIRE WITH GOD" MUST BE THE THOUGHT OF MEN TODAY.

WRITING from the Georgia State Sanitarium, Milledgeville, Ga., Mr. T. H. DeSaussure says:

I have always been a warm admirer of the MANUFACTURERS RECORD, but it seems to me that of late you have left what was the legitimate field of your endeavor for that of politics, and of a kind, destructive criticism, which will do more harm than good to the cause you espouse. It would seem that, as Festus said to Paul, "Thou art beside thyself; much learning (zeal) doth make thee mad." No. I do not wish to subscribe to your periodical.

However, I would like to see a copy of Dr. Hillis' booklet which you advertise, and I am sending enclosed 10 cents for one copy. I take it that this amount will pay postage on the pamphlet.

Mr. DeSaussure probably intended this for a criticism. That at least seems to be the purport of his letter. But it is the highest compliment ever paid to the work of the MANUFACTURERS RECORD, for if this paper could ever accomplish one-millionth part of the work wrought by Paul, due to that "learning" or "zeal" which caused Festus to charge him with being "mad," we would feel that we had accomplished far more than in the wildest dreams of youth we had ever anticipated. Festus' statement was made in derision, but the reply of Paul to Festus was:

I am not mad, most noble Festus; but speak forth the words of truth and soberness. For the King knoweth of these things, before whom also I speak freely: for I am persuaded that none of these things are hidden from him; for this thing was not done in a corner.

Mr. DeSaussure thinks the MANUFACTURERS RECORD has left its legitimate field of endeavor for that of politics. In that he is wrong. Since the day it was established the MANUFACTURERS RECORD has had a field as broad as the economic life of the South and of the nation. It has never been merely a catalogue of Southern resources nor an almanac of Southern achievements. It has ever sought to express its opinions, unbiased by friend or enemies or by any other influences which would shape its course other than its own views as to what is best for the South and for the country.

Mr. DeSaussure also seems to overlook the fact that Paul was a vigorous critic, a "destructive" critic, one might say, of the existing conditions and of the red tape of Phariseism of his day. He was criticising in order that he might uphold. He was working for man's salvation, even though in doing so he had to say many things contrary to the accepted views of his hearers and in vigorous denunciation of those who had failed to realize the new Light which had come into the world and were unwilling to hear the truth. In his destructive criticism of the things of that day, which called forth bitter denunciation from those who were satisfied with things as they were, Paul did so in order that there might be built up constructively a greater power for the overturning of sin and for supplanting evil with good.

Surely Mr. DeSaussure could not ask the MANUFACTURERS RECORD to be inspired by any higher motives than those which moved Paul, and while he apparently is undertaking to criticize this paper he is consciously or unconsciously paying it the highest tribute that it ever received. Our only regret is that it cannot measure up to that learning or that zeal

of the great apostle for the right and the great fighter against wrong.

We can only repeat to Mr. DeSaussure what one year ago, on February 1, 1917, we said in reply to a letter somewhat similar to his, in which we were urged to concentrate our activities on business affairs and on the industrial interests of the South and to have "less politics," which in that case meant to cease to warn the country about Germany and about the necessity of preparedness. In reply to that statement we said what we would again reiterate and say to Mr. DeSaussure and to all our readers:

The MANUFACTURERS RECORD never discusses politics as politics, but it does discuss public questions that relate to the great economic problems of the hour.

Would Mr. Smith have us ignore the tariff question? The tariff is an economic question vitally affecting all business interests.

Would Mr. Smith have us ignore railroad legislation, which vitally affects every man, woman and child in the United States and bears directly on the development of the South?

Would Mr. Smith have us ignore all questions bearing on the war, which is the greatest economic problem in human history, even if we were to ignore its moral aspect and its bearing on the democracy of the world?

Would Mr. Smith have us ignore the questions pertaining to good roads, to river and harbor improvements, to shipbuilding and naval expansion? They all come into the domain of politics, and are affected by legislation.

Would Mr. Smith have us ignore the questions of an armor-plate plant and its location in the interior as a safeguard to national life? This is in politics, and is dominated by politics.

Is it Mr. Smith's idea that the MANUFACTURERS RECORD would be more valuable if it were merely an inane catalogue of Southern resources, without any opinion on any public question, or, if it had an opinion, afraid to express it, because, forsooth, some subscriber or advertiser might think the other way?

If that is Mr. Smith's idea, we are unable to accept his view of the policy which should control the MANUFACTURERS RECORD.

We are living in a momentous period, beyond all human power to grasp.

The mightiest forces of evil and good are arrayed in the mightiest struggle since man was created.

The mightiest changes are taking place in governments, in social and economic conditions, which the world has ever seen.

Shall we sit idly by and not try to study and discuss these things, content merely to concentrate our thought upon purely material affairs? Mrs. Browning sang:

Earth's crammed with Heaven,
And every common bush afire with God;
But only he who sees takes off his shoes,
The rest sit round it and pluck blackberries.

The MANUFACTURERS RECORD has no desire in these momentous days to stand before the bush that's "afire with God" to pluck blackberries.

DOG FIGHT.

STATE PRESS has on hand a large and interesting collection of dog letters, many more than he individually refers to in his restricted space. He is particularly glad, moreover, that nearly all of them are anti-dog. One dear lady at Fort Worth calls herself anti-dog, but she encloses a tender story concerning a certain canine called Tasse, for S. P.'s perusal, and he is afraid to classify her as entirely friendly. Then there is a dog dealer at a certain Texas town, who breeds and sells at fancy prices so-called "thoroughbred" dogs, and this reader is not at all friendly toward the presiding elder of this more or less unpopular column. Regardless, however, of the number, quality, temper or pugnacity of the daug crowd—whether they be "pore" men who pretend to need dogs or hectic Colonels who keep herds of foxhounds—regardless of the entire daug crowd, State Press is steadfastly and vigorously anti-dog. The treatment for hydrophobia patients costs the State of Texas, and individual citizens, thousands of dollars every year, on account of dogs. The almost complete disappearance of mutton from the American family's bill of fare has served tremendously to enhance the price of meats and increase the cost of living. The lack of wool has delayed the equipment of the American army for our country's defense, and the lack of woollen blankets adds to the discomforts of the poor. Sheep farming, once highly profitable and very common, has become almost a lost industry, and it is the unanimous testimony of those farmers who have tried to keep sheep that the dogs make it impossible. A strong recruit has joined the ranks of State Press, being none other than the MANUFACTURERS RECORD of Baltimore, the greatest journal of its class.—Dallas (Tex.) News.

Sakes alive, man, where have you been living and what stuff have you been reading? The MANU-

FACTURERS RECORD "a recruit"? Why, the MANUFACTURERS RECORD started the fight by insisting upon a war tax upon dogs to discourage dog raising and increase sheep raising, and steadily we have ceaselessly pressed it—and now to be called "a recruit"! Is there no redress?

SOW SEED TO INCREASE THE FOOD SUPPLY.

GOVERNOR W. P. HOBBY of Texas, in a proclamation naming Sunday, February 10, as "Seed-Sowing Sunday," took a forward step which merits hearty approval and imitation throughout the whole country. He recognized with a lively sense of the nation's needs the seriousness of the food situation and he clothed his proclamation in vivid words which so illumined the pregnant facts that none may fail to comprehend them. Among other things, he said:

One grain of seed sowed and cultivated will provide a meal for a hungry soldier; one row of grain sowed and cultivated will feed a company; one acre of grain will feed a regiment, and so on. Let us look about us and sow this food for our soldiers until we see every vacant space, be it our 10 feet door yards, our small front lawns, our landed estates or our thousands of acres, all smiling with a promising harvest.

Our State, which could under proper cultivation supply one-fourth of the grain of the entire United States, can feed a good portion, therefore, of our great American army, and the variety of food grains which are ours—wheat, corn, rice, oats, barley—are the very best food for the very best men. The oldest, most heart-searching lessons in our Holy Book are lessons of sowing and reaping, planting and gathering, watering and increasing, so let us learn this greatest lesson and apply its magic truth. * * *

I respectfully request every minister in this State, Catholic, non-Catholic and Jewish, to deliver in his pulpit upon this day, or as near this day as possible, a sermon which will direct the minds and hearts of his congregation to the practical importance and bold necessity, even their obligation, to sow seed and help feed the world.

I further request every instructor in this State, in private and public schools, college and university, to place before their students in unmistakable appeal the importance of this suggestion and encourage them to act upon it as soon as possible. I urge every mother and every father to plant food-producing grain, to utilize every available space in their premises now unused or not necessarily used, and to encourage their children to cultivate it. Let every farmer and every planter who now cultivates only a portion of his land cultivate all of it, for Texas this year does not want a fair crop or an average crop, but a phenomenal crop, the largest ever planted or gathered in this country. With the consecration and conservation of our full energies this can be done, and the blessing which will follow is beyond estimate. I believe our noble Texas will enter into this exalted expression of pure patriotism, remembering that if we do the planting God will give the increase.

This ringing appeal to Texans should be echoed to the people of all the States. The food question is most grave and everyone who has a little ground, even a very little, ought to make it produce something for the use of his own household although the yield may not be sufficient to leave a surplus for the use of others. But if there should be a surplus he may be sure that it will find a ready market. Thus the man who can raise sufficient of staple foods such as corn, potatoes, peas, beans, etc., for his home table will do at least that much towards leaving food in the public markets to be bought for our troops or for the troops of our Allies in the war. The man who has as much as an acre, or maybe half an acre, of land in addition to his truck garden could raise some wheat, perhaps 20 bushels or more if thorough cultivation was practiced.

It is mainly seizing the opportunities which are offered that will solve the problem of adequate food supplies, and now is the time for people to give thought to the subject and to prepare for putting in the crops at opportune times. With earnest co-operation there ought to be no particular trouble about making a large increase in the volume of our crops, but the work must begin immediately and energetically if the possibilities of the situation are to be realized.

WHICH DO YOU PREFER, SILENCE, SUPPRESSION AND INCREASED DEATHS TO OUR SOLDIERS OR LETTING IN THE SUNLIGHT TO QUICKEN LIFE?

FROM a valued reader in Atlanta the MANUFACTURERS RECORD has a letter, which says:

I have only two sons, and they are both officers in the American Expeditionary Force in France. Having given to this holy cause all that I possess, I feel that I may take the liberty of making a suggestion. I love the good old MANUFACTURERS RECORD, and I glory in the way that you are hammering the unspeakable Huns in Germany and all of their sympathizers in America, but I do not enjoy your criticisms of President Wilson and his appointees. I think these editorials and quotations against the Administration are doing more harm than good, and it will give me great pleasure to see at least one issue of the MANUFACTURERS RECORD in which they are conspicuously absent. I believe the majority of your loyal readers and admirers feel just as I do about it, and will be pleased to have the family wash hidden away in the back yard. * * *

I know that you are with us now at heart, and that you are sincere in the belief that these article are for the best interest of our country, but the enemy in our midst is using them to show up the alleged weakness and inefficiency of the American Administration. I don't mind it so much when they get their dope from the old sources, but when they get it from the MANUFACTURERS RECORD, the American paper that is greatest and has the surest hold on our hearts and our confidence, it makes me wish that you would hold up on the criticism.

This suggestion is made as a real suggestion, and not as a criticism. I am not writing for publication. I am simply distressed about the situation.

The MANUFACTURERS RECORD fully appreciates the spirit in which that letter was written, but we would ask this father who has two sons in France if he prefers to have the lives of his sons endangered to a greater extent than at present merely to cover up incompetency which exists in Washington, or does he prefer that the actual facts should be known in order that the lives of his sons and of millions of others' sons may be perhaps saved by better conditions in the War Department?

If our reader will tell us how "the family wash," as he suggests, is "to be hidden away in the back yard" and not cleaned, we will be very glad to have some light on the subject.

The weakness and inefficiency to which we have referred are in evidence. The very criticisms which have been made brought about a great many radical changes for the better, and without these changes still more lives would have been endangered.

Was the MANUFACTURERS RECORD justified in these criticisms?

Was Senator Chamberlain and the Democrats and Republicans associated with him, men who realized the tremendous burden of responsibility which rests upon them, just as greatly as President Wilson realizes his responsibility, false to the country because they demanded an investigation and brought to light many conditions which forced radical changes for the better?

Shall we be men enough to face these facts in order to bring about a correction ere it be everlastingly too late, or shall we shut our eyes to these facts and delude ourselves by trying to believe that all is well when we know that all is not well?

As the MANUFACTURERS RECORD views the matter, these are desperate times, and require heroic remedies, without any regard whatever to personal or party friendships or affiliations. We would gladly praise without end President Wilson and his appointees, and never raise a word of criticism if it were possible to do so without being recreant to its responsibility, but his most ardent friends cannot claim that President Wilson is infallible or his appointees infallible, for no man is infallible. Shall we believe that there is any man on earth so absolutely infallible that we must shut our eyes to what we know to be mistakes and refuse to admit that he can make a mistake? Surely President Wilson makes no such claim for infallibility. It would be a reflection on his intelligence and integrity for anyone to intimate that President Wilson thus regarded himself.

This situation is not a matter of small moment, where friendship or party ties can permit a man to be influenced against his judgment, nor should these

things compel a newspaper which knows that there are shortcomings to cover them up. Take, for instance, the article in last week's issue, taken from the Journal of Industrial and Engineering Chemistry, edited by Dr. Charles H. Herty, for many years one of the foremost chemists of the South and president of the great American Chemical Society, with its 8000 members of the leading chemists and scientists in America. Dr. Herty, based on his personal knowledge, and he has been in close intimate touch with much of the work of the chemists in the War Department, outlines conditions in the War Department which are staggering. They are due to delays and incompetence and red tape. They endanger the lives of all of our soldiers. Does our Atlanta reader, the writer of the letter we have quoted, in his love and admiration for President Wilson, demand that President Herty should refuse to open up the light on this situation when there is no possible way of curing these ills except by the sunlight of publicity?

The MANUFACTURERS RECORD knows no other way of honest newspaper work in a crisis such as we are now facing, which means life or death of millions of our men, the life or death of our country and the life or death of civilization itself, than to call attention, when it knows where incompetence exists, to incompetency and to urge that the incompetents should give way to men of ability and that red tape should be supplanted by direct business methods.

The same fight was made in England and in France. The men and the newspapers who dared to criticize the conditions in those countries did so against the protest of friends who insisted that to open up these conditions would aid the enemy. If it had not been that these protests were disregarded and that in France and England there had to be radical changes, one after another, throwing out the incompetents and testing new men, and if they did not succeed, supplanting them with others, England and France would long ago be under the domination of Germany.

It is from no love of criticism that the MANUFACTURERS RECORD has definitely pursued the policy since the beginning of the European war in demanding preparedness on the part of this country and of late months in pointing out the incompetency which exists in Washington. This paper is a paper of optimism, not of pessimism. It was born in optimism and brought through the hard trials of its early days by optimism which would not recognize hardships, and, therefore, anything which is pessimistic or partakes of criticism against others is never from a pessimistic or critical spirit, but is due wholly to a sense of duty which must move every honest paper in the country.

Our Atlanta reader admits that there is a "family wash to be hidden away" somewhere, but the family wash in this case is out open before the nation, and there is no power on earth to cleanse it except by the sunlight of publicity. If it is left "hidden away in the back yard" of inefficiency it will grow steadily worse and the dirt will accumulate and the rot will follow, and then there will be decay and death.

The same mail which brought the letter from our Atlanta reader brought a clipping from the Evening News of Buffalo, N. Y., which, under the heading "Concerning Criticism," said:

There is an old royalist maxim, "The king can do no wrong." And it does not seem to fit into the American scheme of things.

Like Iago, "we are nothing if not critical," and we cannot see why the war should render the Administration immune from criticism.

We are told that if this war is to be won there must be less criticism and more co-operation; that we should defer the charges and counter-charges until after victory is won, and that such a victory will be delayed by probing into things and insisting that mistakes be corrected.

We hold that to point out the weak spots in the national armor, to ask the why and wherefore of procrastination and show up incompetence is a right and a duty of every citizen, and one which he should be given credit for, seeing that he exercises it to make for stronger measures and policies which will win the war.

The MANUFACTURERS RECORD utters a clarion-noted truth when it states that criticism, regardless of personal or party friendship, where criticism is needed and where it can be helpful to the nation, is the bounden duty of men and the press in this time of sacrifice and danger.

Plain speaking and frank criticism of incompetency

and error will result in their removal. England was saved by such criticism when Northcliffe voiced his opinion of the ordnance department and turned out easy-going Asquith and a minister of munitions was created and an efficient war cabinet formed.

This war is bigger than any one man. It is bigger than any set of men. And loyalty that is demanded is loyalty to country and ideals and which demands efficiency in the administration of measures through and by which those ideals may be materialized.

MARK POTTER PAMPHLET ON FOOD PRODUCTION SHOULD HAVE WIDE DISTRIBUTION.

THE imperative and, indeed, absolutely vital, need for increased food production as so intelligently discussed by President Mark W. Potter of the Carolina, Clinchfield & Ohio Railway in the January 31 issue of the MANUFACTURERS RECORD has attracted wide attention among the thinking men of the nation. The facts as set forth by Mr. Potter so clearly stated the situation that anyone reading this statement must realize that we are face to face with a question which demands the fullest and quickest consideration by capitalists, manufacturers and those who have the nation's good at heart.

From various sources suggestions have been made that President Potter's article should be reprinted in pamphlet form and given wide distribution throughout the country among capitalists, financiers, manufacturers, newspapers, public men and every place where it can help to arouse the nation to this great need of the hour.

Writing along this line, W. H. Sullivan, vice-president and general manager of the Great Southern Lumber Co., one of the most widely known lumbermen in the country, says:

The article, on page 63 of your January 31 issue, on food supplies is a splendid article, and ought to be circulated in pamphlet or leaflet form. It should be distributed by every manufacturer in the South, in everyone's immediate locality.

As Mr. Potter's clear analysis of the situation points out that we must look to milder climates to secure the greatest measure of the needed extra production of food crops, there is at once set forth an opportunity for the South to center wide attention upon the millions of acres of idle, wet and cut-over timber lands in this section that are ideally located for large crop production, and which can be brought into cultivation through intensive, aggressive development by efficient, organized efforts.

Nothing could serve so strongly to bring before the nation the opportunities these lands of the South offer than for the railroads, commercial organizations, industrial organizations and manufacturers to undertake a distribution of reprints of Mr. Potter's article. These reprints will be gladly supplied by the MANUFACTURERS RECORD at a nominal cost.

Wants Always to Know if "All Is Well."

CHAS. W. HOWARD, Chattanooga Industrial Board, Chattanooga, Tenn.

Secretary Baker's second appearance in the role of public explainer was somewhat more credible than his first. The question that naturally arises is this: "Did the Secretary know all of this on his first appearance or was his explanation the result of departmental 'craming'?" If the last appearance is really of "all-wool-and-yard-wide" facts, and he knew them before, it is another one of those "unavoidable mistakes" that he did not take the senatorial committee into his confidence. If it's a case of "craming," and it has many of the earmarks, we will doubtless need, ere long, another "after dinner New York speech."

It seems to me that a non-partisan standing senatorial committee would be regarded by all patriotic Americans as a sheltering rock. This committee could stand prepared to investigate whenever a majority of the committee thought it advisable. It would not be necessary with the right kind of a committee to publish their findings. A cheerful, "all is well" from them would keep us all "heartened up powerfully." If everything was not "all well," we would miss the cheerful message, but we would know that the watch was on deck.

BIG DRYDOCK FOR PORT WENTWORTH.

Government Awards Contract for Dock to Handle 10,000-Ton Ships Near Savannah.

From \$2,500,000 to \$6,000,000 will be the cost of the drydock mentioned last week as to be built at Savannah by the Government. This dock will be large enough to provide berth space for ships up to 10,000 tons burden, and it will be accompanied by facilities enabling the plant to construct and repair wood and steel vessels of every class. Its plant will include general repair yards, machine and blacksmith shops, carpenter shops, sail lofts, etc. The cost will depend upon the character of construction decided upon, as all steel and all wood and composite wood and steel plans are under consideration. There has been no final decision as to the site, but the dock will probably be located at Onslow Island, near the plant of the Terry Shipbuilding Co. at Port Wentworth, several miles from Savannah.

Contract for the construction of this dock has been awarded to Britain & Terry of New York and Port Wentworth, interested in the Terry Shipbuilding Corp., which last year established shipyards at Port Wentworth. Pending a decision as to the exact character of construction for the dock, the contractors will immediately prepare to purchase materials and to arrange for workmen so that actual construction can begin upon a final decision as to the construction and the site.

The plant will employ several thousand men for full operation after completion, and its location in the Savannah section will result in greatly increased industrial activities in that city and its surrounding territory. Practically every class of business will be benefited by the varied and extensive demand which the plant, with its employes and their families, will create for Savannah.

The Savannah Board of Trade and a committee of citizens of Savannah were instrumental in having Savannah harbor's advantages presented for the attention of the Emergency Shipping Board, having visited Washington for this purpose. The harbor will accommodate vessels of 30-foot draft except during the spring tides, when ships of 32 feet draft may cross the channel bar. Further facilities will be provided during the next several years, as it is understood that the Government officials contemplate an expenditure of not less than \$10,000,000 for enlarging and improving the terminal facilities at Savannah in connection with plans also being considered for large expenditures at Brunswick. Great increases in shipping will follow at Savannah in connection with the plan of the Government directors of the railways for cotton shipments through Savannah, Brunswick and Charleston, S. C., in addition to which lumber shipments and iron from Alabama and Tennessee will be diverted through these ports. The immediate plans are for the duration of the war, but the facilities provided will be of a permanent nature, available for the future development of Savannah.

\$1,000,000 SHIPYARD IMPROVEMENTS.

Beaumont Company to Add Drydock, Ship-Fitting Plant and Other Facilities.

An expenditure of \$1,000,000 for additional facilities is the plan of the Beaumont (Tex.) Shipbuilding & Drydock Co., \$300,000 of this amount to be for the purpose of providing a ship-fitting plant to equip 30 wooden vessels for the Government. The Government contract amounts to \$10,000,000 and provides for the installation of boilers, engines and other machinery in 30 ships now under construction at Beaumont, Orange, Houston, Corpus Christi and other shipyards on the Gulf coast west of the Mississippi River. About 500 carloads of machinery will be required for installation in these ships at the shipbuilding plant, and the 30 Government hulls will be floated to Beaumont to receive the equipment.

The company will construct a drydock costing \$500,000, drydock slips and equipment costing \$200,000 and the \$300,000 ship-fitting plant. This drydock will be built in sections, and the first unit will have a capacity of lifting 8000 tons, which is to be increased to 14,000 tons. This latter tonnage will be sufficient to handle the largest vessel plying the waters of the Gulf of Mexico. The main drydock slip will be 40 feet deep and 700 feet long by 170 feet wide, for which dredges have already begun. There will also be built marine

machine shops, sail lofts, warehouses, storage yards and a wharf 1500 feet long.

This Beaumont shipyard is located on a 71-acre island, about half of which is now occupied by the plant and the other half is expected to be required for the additions. It will pay more than \$1,700,000 during the next 16 months for labor, thus further adding to the general business activities which have already become so extensive at Beaumont and have increased greatly since the Government awarded big contracts for millions of dollars' worth of ships to be constructed in Beaumont yards. The 30 hulls which the company will equip are costing about \$300,000 each, and for each vessel there will be invested \$250,000 for mechanical equipment.

Contracts with the Emergency Fleet Corporation for equipping the ships include Government financial assistance in providing the necessary facilities, so that the plants may be promptly installed. The Beaumont plant now employs 1000 men, and 2000 more will be employed after these important facilities have been established, the annual payroll to be \$1,500,000.

Building Ships in Texas Ports Expected to Be Permanent Industry.

Orange, Tex., February 11—[Special.]—It is the opinion of men who are engaged in the shipbuilding industry at Orange, Beaumont, Houston and other Texas ports that the several contracts for wooden ships which are now being fulfilled are a forerunner of a very large and permanent business in the construction of ocean-going vessels. It is also believed that it is only a question of time when the construction of steel ships will be inaugurated on a large scale at Houston, Orange and Beaumont. There are now being constructed in the new shipbuilding yards at Orange 50 wooden vessels, consisting of steamers, auxiliary sailing ships and sailing ships.

The National Shipbuilding Co. is building and has under contract the following:

Twelve steamers of 4500 tons, 315 feet over all, 48-foot beam, 25-foot draft. These ships are for the United States Government, building under specifications of the Emergency Fleet Corporation, to be delivered complete; two steamers of 4500 tons, 48-foot beam, 25-foot depth of hold, building for the Cunard Line; four oil tankers of approximately the same dimensions for account of builders.

The International Shipbuilding Co. has seven ships on ways, each of 301-foot length, 44-foot beam, 25-foot depth of hold, 3500 tons; one ship of same dimensions in water now being rigged; fifteen 3600-ton ships under contract. All of these ships are auxiliary sailers.

The Southern Drydock & Shipbuilding Co. has five standard Government hulls.

The Orange Maritime Corporation has three ships, 203 feet over all, 41-foot beam, 22 feet 3 inches draft, 2200 tons, for account of builders.

Ed. Weaver & Sons have one ship of 700 tons, 19-foot depth of hold, 36-foot beam, 165 feet in length, which it is building on account of the Southern Drydock & Shipbuilding Co.

The International Shipbuilding Co. has completed three vessels here of 2000 tons each.

The Orange Maritime Corporation built one ship in Beaumont, which was rigged out complete in Orange and sold.

The Miller-Link Lumber Co. and the Lutch-Moore Lumber Co., whose mills are located in Orange, are furnishing a very large per cent. of the timbers and lumber for these vessels.

There are approximately 4000 men employed in the shipyards in Orange. Several additional contracts have been offered, and the prospects for a continuation of this work in Orange for many years is very bright.

At Beaumont there are many wooden ships under construction, involving, it is stated, more than \$20,000,000.

The Emergency Fleet Corporation has awarded a contract to McBride & Law of Houston to install machinery and otherwise equip for sea service the four wooden ships which it is to construct at Houston.

At the present time four shipbuilding firms of Houston are engaged in building 12 wooden ships for the Government, and at least four of these will be completed in early spring. Work on the others will be rushed as rapidly as possible, and it is expected all of them will be completed by the middle of summer.

In addition to two hulls being built for the Govern-

ment by McBride & Law, the following firms are now engaged in turning out contracts:

The Beaumont Shipbuilding & Drydock Co. is building four vessels for the Government and four others for commercial use.

The Lone Star Shipbuilding Co. is constructing four hulls for the Government.

J. M. McCammon is building two ships for the Government.

The Tarver Shipbuilding Corporation is building a small schooner for commercial use.

Henry Piaggio, lumber exporter, is building two large vessels for his own use.

Ship Brace and Treenail Plant.

About 10,000 feet of live oak lumber will be used each week in the manufacture of ship braces and treenails by the Gulf Coast Hardwood Milling Co. of Sweeny, Tex. This is a new corporation, chartered with \$5000 initial capital by W. H. Gilmartin, H. E. Cummings, C. F. Browning and P. V. Petty, who is manager, all of Houston. It has purchased 26,000 acres of hardwood timber land, estimated to contain 23,000,000 feet of lumber, on the St. Louis, Brownsville & Mexico Railway, and extending to the San Bernard River, three miles east of Sweeny. Buildings are now being erected to be equipped with 150-horse-power boiler, 100-horse-power engine, 52-inch mill, rip saw, treenail machines and electric-lighting system.

The principal production will be treenails sawed out of live oak, according to Government specifications, for constructing oceangoing wooden ships of the type now being built for the Government in many shipyards. Ship knees for constructing vessels will also be manufactured, these knees being sawed from the irregular growth or crooks in live oak trunks and limbs. This Gulf Coast plant is expected to begin manufacturing by March 1 with 100 men employed.

French Minesweepers at Savannah.

Minesweepers for the French Government will be constructed at Savannah by the Foundation Company of New York, contract having been obtained for 36 vessels of this type. The company is now planning to build its shipyard and has purchased a site with frontage of 2700 feet on the Savannah River, the purchase price exceeding \$150,000. Additional contracts are pending upon the establishment of the necessary facilities for the character of ships mentioned, and the completed plant will employ 2000 men when in full operation.

Several Southern cities were under consideration before Savannah was chosen for the location of this important enterprise because of that port's advantageous situation, affording rail and water access to Northern ports, including three railways to Birmingham. C. A. D. Bayley, the company's vice-president, and several other officials are at Savannah completing details for the shipyard.

Shipbuilding News of the Week.

The Bruce Drydock Co., Pensacola, Fla., plans to acquire additional waterfront land adjoining its shipyards, and proposes to build another sectional drydock and a floating drydock with lifting capacity of 5000 tons.

Florida and Pennsylvania capitalists have incorporated the Dempsey-Camp Shipbuilding Co., Carrabelle, Fla., with \$150,000 capital. John J. Dempsey of Philadelphia is president; P. R. Camp, vice-president; Burton J. Ray, secretary-treasurer; both of Carrabelle.

J. L. Weller plans to establish shipyards for the construction of concrete vessels at Savannah, and it is understood that he is seeking a suitable site for the enterprise. It is reported that Mr. Weller was the chief engineer for the design and construction of the \$50,000-000 Welland ship canal built by the Canadian Government. He has recently located at Savannah, and wires the MANUFACTURERS RECORD: "Hope to arrange for building one 3000-ton test ship of reinforced concrete. Have probably some 600-ton lighterage barges, but have made no definite arrangements as yet."

The Southern Pine Association of New Orleans announces that every shipyard along the South Atlantic

and Gulf coasts is now supplied with all timbers needed to permit of full operations. Many yards are piling up reserve materials. Maximum speed is being rapidly attained in rushing to completion the first 200 hulls for Uncle Sam's wooden fleet. Some of these hulls will go into the water next month. A number of shipyards are planning to operate day and night, as soon as necessary labor is available. Three eight-hour shifts will be maintained. H. D. Foote, assistant director of the lumber department of the Emergency Fleet Corporation, states: "Yards are rapidly hitting their stride. In spite of great difficulties they have and are still encountering in getting out the big sizes, Southern pine mills are producing ship timbers in increasing volume. No complaints about shortage of material are now being received from shipyards. We think the work will now proceed rapidly."

Sulphuric Acid Production Breaks the Record.

More sulphuric acid was produced in the United States in 1917 than in any previous year. A moderate estimate shows that the increase in the production of acid of all strengths in 1917 over that of 1916, stated in terms of 66 degrees B. acid, amounted to at least 600,000 tons.

It is not yet possible to state accurately the production of sulphuric acid in 1917 according to strengths, for some of the companies that produce 50, 60 and 66 degree acid have reported their entire production together and so stated it as if they had made only 100 per cent. acid. Now, 100 per cent. sulphuric acid is above 66 degrees B. and is here reported as "stronger acid," but, in view of the fact stated, a certain quantity of the stronger acid reported should really be carried as acid having a strength of 66 degrees B. or less. However, as no data are available to show the proper distribution of all the acid made in 1917, the following table has been prepared as if the reported production were the actual production:

Strength of acid	Short tons	
	1917	1916
50°	2,306,372	1,829,471
60°	1,187,704	1,119,753
66°	850,000	1,580,100
Stronger acid.....	1,130,019	443,332

In comparing the production reported for 1917 with that for 1916, only acids of similar strength should be compared. For instance, the amount of acid of 66 degrees B. reported for 1917, namely, 850,000 tons, is equivalent to 1,290,000 tons of 50-degree acid. In other words, the sum of the amounts of the different acids as given above for 1916 and 1917 should not be compared to show the output in the two years, for the great increase in the output of the stronger acids would represent a much larger increase in that of the weaker acids.

The condition of the market for sulphuric acid in 1917 is reported to have been on the whole even better than in 1916, and the value of the product was considerably higher than it was during that year of high prices. Some companies have had difficulty in obtaining sufficient sulphur ore, and many of them have been compelled to change from pyrite to sulphur burners. Experiments in the greater utilization of pyrrhotite have been carried on and attempts have been made to find domestic deposits of pyrite that can be used if the supplies of foreign ore are curtailed under the conditions imposed by the war.

The estimates given above are based on returns from the acid manufacturers received by Philip S. Smith of the United States Geological Survey, Department of the Interior. Nearly 98 per cent. of the manufacturers reported their production and that of the others was estimated from previous records. It is believed that the totals of these preliminary figures will approximate very closely the final figures, which will be made up when the complete returns are received, although the quantity of acids of different strengths as stated may require considerable readjustment.

Idle Acres in Louisiana That Will Be Put Into Cultivation.

New Orleans, La., February 8.—[Special.]—Suburban farm lands activity in the parishes lying within a radius of approximately 100 miles of New Orleans is indicated by sales, within the last few weeks, of some 10,000 acres of land heretofore in cultivation, but which

had been idle for some years, by their owners for sugar planting. Prosperous South Louisiana farmers are now showing a disposition to put their big agricultural profits into the purchase of more lands. Notable instances of the suburban farm progress of the past few weeks in this part of the State have been in connection with reclaimed lands in the rich Barataria district of Jefferson, where several thousand acres have been bought to be put into the cultivation of potatoes and truck. In the Paradis section, west of Barataria, approximately 2000 more acres of reclaimed land are to be planted in corn this year. Oak Alley, an old St. James parish estate, in the heart of the French-speaking sugar-growing district, is being renovated after having lain idle for many years, and will be planted in foodstuffs at once.

Construction of the second unit of 50 silos and the drainage of 16,000 acres of livestock lands on Avoca Island at Morgan City, La., is announced from there, together with the statement that more than 5000 head of tick-free cattle and 15,000 goats are now being fed on Avoca by the Louisiana Livestock Co., Inc.

Sales of lands near New Iberia, in the Bayou Teche country, for rice culture have been quite frequent lately, and at high prices.

Truck and livestock raising are the favorite uses to which the newly-acquired suburban lands are being put, and the recent establishment of a livestock bank at New Orleans by Morris & Co. has been a powerful stimulus to livestock farming all over South Louisiana.

The most important sugar expansion item of the recent past was the purchase of a half-interest in the South Bend sugar factory and plantations from the Pharrs by I. S. Wooster, John C. Clausen and L. C. Grevemburg. Clausen and Wooster were perhaps the most potent factors in the successful co-operative sugar planting and manufacturing project of the Centerville Sugar Co. at Centerville, St. Mary's parish. Grevemburg was formerly connected with the white sugar factory in Louisiana at Adeline, La., owned by the Adeline Sugar Co., which was dismantled under the cloud of free sugar some years ago. The Centerville project was built about three years ago, and has already been paid for. It is owned and operated by the farmers who supply the factory with cane. It has paid the farmer stockholders an average of \$1 more per ton of cane than any other place since it started. The new owners propose to duplicate the Centerville co-operative scheme on South Bend, only on a larger scale. The South Bend plantations are in the Bayou Sale country of St. Mary, a section long famous for its big cane crops. The South Bend factory is also included in the reorganization plans.

Steel Ingot Production Since June.

The American Iron and Steel Institute announces the monthly production of steel ingots from June to December, 1917, and for January, 1918, as reported by 29 companies which made 88.14 per cent. of ingot production in 1916, as follows:

Months	Gross tons			Total
	Open-hearth	Bessemer	All other	
June, 1917.....	2,265,772	809,552	8,405	2,083,729
July	2,152,479	777,171	9,465	2,939,115
August	2,251,913	863,573	8,331	3,123,217
September	2,195,556	770,064	6,639	2,972,259
October	2,475,754	870,494	5,687	3,351,935
November	2,384,218	772,489	9,580	3,166,287
December	2,196,832	624,084	13,806	2,834,722
January, 1918.....	1,763,356	429,588	10,901	2,203,845

Another Nitrate Plant for Alabama.

Nitrates, chlorine, ammonia and dyestuffs will be the product of a company which is being organized by William Simonson, a Cincinnati chemist, and Cincinnati capitalists. The chemicals will be manufactured by a process, invented by Mr. Simonson, claimed to greatly reduce the cost of production in unlimited quantities. It is understood that the projectors of this enterprise are considering the location of the plant at or near Muscle Shoals, Ala., where the Government is building its \$30,000,000 nitrates plant.

Referring to this report, Forest Nevin, manager, 1033 Central avenue, Cincinnati, wires the MANUFACTURERS RECORD: "A Cincinnati scientist has made a discovery which will be able to compete with any other competitor in the manufacture of nitrates. Company will be incorporated for \$100,000 to take care of proposition for an unlimited capacity."

How Germany Stopped the United States from Building Ships

PRESENT DAY PREDICAMENT DUE TO SINISTER DESIGNS AND DEVIOUS WAYS OF GERMAN GOVERNMENT—WARNINGS OF FAR-SEEING STATESMEN UNHEEDED BY CONGRESS—HISTORICAL REVIEW OF FIGHT AGAINST A VICIOUS PROPAGANDA.

[Special Correspondence Manufacturers Record.]

Washington, D. C., February 9.

The long-continued, and, which is more regrettable, the successful efforts of the German Government to prevent the creation of an American merchant marine, so that in any crisis, such as the present war, this country would be gravely embarrassed through lack of ships, have lately been recalled by Representative Julius Kahn of California in a speech before the Republican Club of New York city.

Mr. Kahn reminded the club that in 1907 a New York agent of the principal German steamship company openly opposed, through arguments published in a Gotham newspaper, the passage of the ship subsidy bill then before Congress, and that these arguments were employed by members of Congress to defeat the bill.

Commenting here this week upon his New York speech Mr. Kahn said to the MANUFACTURERS RECORD correspondent:

"The sinister design of Germany in frustrating legislation of that kind only now becomes apparent. Had the ship subsidy measure been adopted the continuous construction of ships for the United States merchant marine would have been assured. They would have been vessels measuring each not less than 6000 tons and with a speed of not less than 16 knots.

"By this time we should have had 30 or 40 such ships, that would have proved of the utmost value in helping us to win the war. Yet those vessels would have cost the Government only \$5,000,000 a year. Now, when every minute of time is precious, we must spend a billion to build up our merchant fleet."

In other words, the German purpose, so fully achieved, was to place this country exactly in the position it now occupies should it ever become a party to any war.

But the Teutonic betrayal of the nation that had trusted the Kaiser's pretense of friendship was by no means limited to sporadic propaganda or even to continuous propaganda. As the most effective, practical method of restricting the foreign commerce of the United States and of checking the development of an American merchant marine, the German Government long ago built up powerful steamship companies, which, in turn, created and controlled a world-wide steamship trust, drawing the major part of its vast profits from the freight and passenger traffic between other countries and the United States. Twenty years ago, when the United States fought Spain, it was German steamship companies that reinforced the Spanish navy with high-speed cruisers.

Mr. Kahn, treating several topics in his address, did not have time to recall this steamship trust, nor to point out what he and many other Americans will remember, that the same great German steamship company which had openly, and doubtless otherwise, interfered with Washington legislation in 1907, was discovered three years later to be attempting the corruption of the most influential news agency in the United States, namely, the Associated Press. With this strong hint of corruption went suggestions that the German Government, through the same steamship company, was hoping to maintain at the War and Navy Building a privileged spy upon the military and naval operations of America.

A ship subsidy law designed to encourage, through the method successful abroad, a rapid, substantial growth of the American merchant marine, had been before Congress for several years when Senator Gallinger of New Hampshire, on behalf of a Senate committee, submitted a bill embodying the provisions most in favor with his party. Passed by the Senate February 14, 1906, the vote being 38 to 22, this bill was amended by the House. It was then passed, March 1, 1907, with a majority of 12 votes out of 302, and returned to the Senate. There it encountered deliberate check by filibustering Senators, especially by Senator Carmack of Tennessee, which resulted in the defeat of the bill,

through time limitation, when the Fifty-ninth Congress ended on March 4, 1907.

On February 26, 1907, Representative Grosvenor of Ohio, the Republican leader, opened the prolonged debate in the House with a statement setting forth the unconcealed and extreme hostility of the great German steamship companies to all American interests, both commercial and national.

"Two great foreign steamship companies," said Mr. Grosvenor, "which have bitterly fought the encouragement of American shipping, are the Hamburg-American company of Hamburg and the North German Lloyd company of Bremen; the latter subsidized for \$1,350,000 a year for a 15-knot mail service to the East Indies and Australia.

"The New York manager of the Hamburg-American company, Mr. Emil Boas, published in the New York Herald a few weeks ago a violent attack upon the American shipping bill.

"Both of the great German steamship companies owe their wealth and power chiefly to the patronage of American merchants and travelers. Yet in the crisis of our war with Spain, in 1898, both companies took fast ships out of their New York service—ships built for and supported by American patronage—and transferred them to the Spanish Government. Some of these ships were used to reinforce Admiral Camara, who sailed from Cadiz to attack Admiral Dewey at Manila, but was halted at the Suez Canal by the news of the destruction of Cervera's ships off Santiago and our threatened attack upon the coast of Spain.

"A. G. Maginnis, in 'The Atlantic Ferry,' published by Whitaker & Co. (London, 1900), speaks of the Hamburg-American company and its transatlantic service, and says:

"Two of these vessels were named the Columbia and the Normannia, and were sold to the Spanish Government, in the spring of 1898, for 450,000 pounds, and were renamed the Rapido and the Patriota. In 1880 the Normannia was purchased from the Spanish by the French Compagnie Transatlantique for their New York express service, and was renamed L'Acquitaine, and in the same year the Columbia was bought back by the Hamburg-American line.

"In 1898 also the Havel, of the North German Lloyd Line, was sold to the Spanish Government."

Mr. Grosvenor continued:

"The real head and front of opposition in this country to the protection and encouragement of American shipping always has been, is, and always will be, the rich and powerful steamship companies, most of them subsidized by their own, foreign governments. This fact has time and again been freely admitted.

"The foreign steamship companies that do not want this ocean mail bill" (that is, the ship subsidy bill) "to pass—like the foreign shipowners who monopolize our trade through a foreign combine, or trust, between New York and South America—tell the representatives of the Middle West that the West has no interest in an American merchant marine; that this bill is only 'graft' for the benefit of New England, New York and Pennsylvania, and that the Mississippi Valley and the prairie States ought to join with this foreign steamship combine and with the subsidized companies of foreign countries to defeat in this House all legislation for the protection and encouragement of American shipping.

"That is what they tell you in the marked copies of their newspaper organ that they are constantly sending to you from New York."

Representative Kahn was, therefore, amply justified in his recent patriotic reminder. As reported, it is interesting to note by the same New York paper that was mentioned by Representative Grosvenor 11 years ago, Mr. Kahn said:

"We need to go back only to 1907 to prove this, for then it was that a man then the general manager in

this country for the Hamburg-American Line openly and publicly opposed the legislation for a ship subsidy that was pending in Congress. He printed his contentions in your daily newspapers in this very city. And then members of Congress carried those printed advertisements into the houses of Congress and used them to defeat that measure. It is now that we can see the sinister intentions that were back of the man's opposition to the ship subsidy measure. We can see now why he printed those arguments. The answer is that America has no ships to carry supplies. If we had spent \$60,000,000 then for ship subsidies we would not now have Congress appropriating \$1,000,000,000 for ships of small tonnage that probably will have to be thrown into the scrap heap when the war is over."

In 1918 the warning uttered by Mr. Grosvenor has come to appear, like many another correct prediction, no more than an unescapable conclusion from the obvious facts.

Indeed, when the Fifty-ninth Congress and the Senate debate upon the ship subsidy bill were about to end, March 4, 1907, Senator Gallinger, unwittingly perhaps, made a prophecy wherein an element of truth may be found, which, had it then been realized, would have thrilled and perturbed his audience.

"While," said he, "I acknowledge defeat today, my faith in the good sense and patriotism of the American people leads me to see success in the not distant future."

Then came the forecast so differently and regrettably fulfilled:

"We shall not go on forever, as we are going on now, paying \$200,000,000 every year in freight, mail and passenger money to the shipowners of foreign nations, our rivals in trade and our possible enemies in war!"

That the opposition to the ship subsidy measure was no doubt sincere upon the part of nearly all the Representatives and Senators who aided in defeating it was, as now seems clear, only a strong tribute to the cunning of the German methods which misled Americans, largely by camouflaging the intentions of Berlin. Few Americans then could dream of their country becoming involved in a world war. The debate reflected this lack of foresight, not to say this credulity, widely shared by the nation's legislators. Speaking against the subsidy bill, Representative E. H. Hinshaw of Nebraska, on February 28, 1907, said:

"It has been intimated that, because other nations subsidize their ships, it is therefore incumbent upon the United States to do likewise.

"Germany, England and France are essentially warring nations. They maintain great navies and standing armies which we, with our greater wealth and population, do not attempt to emulate.

"It is needful for those nations who are always menaced by the specter of war to have merchant vessels instantly available for use as transports. And so, for the purpose of bolstering the falling fortunes of this bill, lurid pictures of war have been conjured up to intimidate us into the enactment of the measure.

"But the same American, viewing the history of his country and the direction of its policies, sees no war cloud upon the horizon, and fears no contest which present resources cannot amply sustain."

On June 16, 1910, Representative William E. Humphrey of Washington, then prominent on the Republican side, delivered a striking and informative speech during the long debate upon a resolution he had introduced the day before. This proposal called for an "investigation of certain foreign shipping rings, conferences, pools and combinations, and to ascertain whether any American steamship lines belong to these combinations."

It was significant, Mr. Humphrey thought, that all the facts regarding these rings were contained in English official publications, notably in the report of a royal commission submitted in 1909, yet the story had never been printed in any newspaper or other publication in the United States. He declared that this country "grew hysterical over the announced existence of any small domestic trust, but endured complacently serious evils perpetrated at our expense by foreigners for the benefit of foreign countries."

In 1910, he said, the foreign commerce of the United States would amount approximately to \$3,500,000,000, of which more than 90 per cent. would be carried by foreign ships at prices fixed by the different shipping lines among themselves without regard to the desire of the shipper. This was true of all the ocean shipping lines throughout the world.

The headquarters of all the ocean-shipping pools was at Jena, Germany. There every steamship rate was

fixed both for passengers and for freight. "Not a single passenger is carried between this country and Europe," said the representative, "not a single pound of freight, for the carrying of which there is the slightest competition." Two great German companies—the Hamburg-American Line and the North German Lloyd Steamship Co.—were the leaders of the combination, which, as being in the main a foreign organization, was one over which the United States Interstate Commerce Commission had no jurisdiction nor control.

In order to favor European as against United States exporters to South America, only slow and out-of-date steamships were permitted to run between the United States and the Southern continent, although first-class, speedy vessels were kept in service between South America and Europe. Hence it was taking from three to eight months to deliver in South America freight ordered from the United States by South American importers. Hence also practically every passenger transported between the United States and South America went by the way of Europe. Another and inevitable result was that the foreign steamship companies had succeeded, to all intents and purposes, in driving the United States out of the South American markets.

Mr. Humphrey outlined a similar situation on the Pacific Oceans, where even the use of sailing vessels was controlled by a pool of German, French and English companies. Within five years this pool had raised the freight rates to Europe from Pacific coast ports of the United States not less than 500 per cent.

"The Hamburg-American Packet Line," Mr. Humphrey declared, "is the greatest power in this steamship combination, the most gigantic trust and monopoly that exists in the world. With the possible exception of some Japanese lines, the Hamburg-American Line is the most heavily subsidized steamship line in the world. It is supported by the influence and wealth of the German Government; it stands, indeed, for the German Empire, of which it is the favorite child. The German Emperor is reputed to be a heavy stockholder in this company. The earnings of this mightiest of all monopolies are probably not less than 25 per cent. upon the capital invested, which exorbitant profits come mostly from the American people.

"The head of this world-wide trust," the speaker continued, "is Herr Albert Ballin, by common consent the most influential man in Germany, except only the Emperor. Herr Ballin sits in Germany today and absolutely fixes the price that the American merchant, the American manufacturers, the American farmers, must pay on every pound of freight sent to Europe or to South America. He absolutely dictates what any American citizen must pay to visit Europe or to visit South America.

"Herr Ballin and Herr Boas, the latter being the general manager in this country of the Hamburg-American company, have frequently, through the American newspapers, denounced the efforts made by the American Congress to do something to assist in building up our merchant marine. Herr Ballin came to this country a few years ago and made a speech to American business men in New York city, insisting that America should permit Germany to carry American commerce on the seas. He and his New York representative, Herr Boas, have attacked and denounced all legislation looking to the upbuilding of our merchant marine. They have opposed the ocean mail act of the majority (that is, of the Republicans) and the discriminatory duty plan of the (Democratic) minority.

"The hired representative of Herr Ballin and his interests," Mr. Humphrey announced, "is here in Washington today on the staff of the Associated Press, the greatest news-gathering agency in the world. This gentleman's name is Mr. J. J. Wilber, and when you remember how close the German merchant marine is to the German navy, it is at least suggestive that this representative of this great foreign steamship trust should also be the representative of the Associated Press assigned to our State, War and Navy Departments.

"When he was on the witness stand the other day (before a House committee) Mr. Wilber refused to testify as to the amount of money that he was being paid by the steamship company for his services. But the next day Mr. Boas of New York testified that Mr. Wilber's compensation from the Hamburg-American company was \$3000 a year. What are the services he has rendered this company?

"This is the Herr Ballin whose company voluntarily

withdrew two of its fastest and best ships and sold them to Spain in 1898 to sink, burn and destroy American commerce!

"This is the man, and this is the company, that today absolutely dictates how and on what terms our great nation shall transport \$3,500,000,000 worth of commerce annually!

"This is the man whose company, when sued by American citizens for rebating and pooling steamship charges so as to destroy competition, answered that the Hamburg-American company was a foreign corporation and that Herr Ballin would do as he liked!

"No wonder that we are today, in our trade relations with other nations, considered the blind and strutting fool of the world!"

Mr. Humphrey then argued that, in view of the fact that these discriminations were practiced against United States interests by foreign steamship companies controlled by foreign governments, the commercial treaties with such governments were violated and should therefore be abrogated by the United States.

"One thing," he declared, "is certain; this country can never have its fair share of the commerce of the world until these combinations of foreign steamship companies are destroyed."

In accordance with his position Mr. Humphrey had introduced June 14, 1910, a bill providing that a discriminatory duty of 10 per cent. ad valorem should be placed upon all importations carried on foreign ships whose owners were parties to a shipping pool.

But the country had not yet awakened to the danger of its situation, nor had the long arm of German intrigue lost its control of Washington. Mr. Humphrey's proposal, so obviously proper and necessary, was promptly laid to rest in the custody of the House Committee on Merchant Marine.

A like fate was encountered by his joint resolution, introduced the same day, which called for a formal inquiry into the matter of foreign steamship pools and their effect upon American commerce. The Committee on Rules merely filed the resolution.

If Representative Humphrey's presentation of significant truths thus failed unhappily to overcome the obtuse optimism, the Bolshevikian "charity" of American statesmen, one trifling fragment of protection was effected. The following day J. P. Gavit, chief of the Washington bureau of the Associated Press, wrote to Mr. Humphrey that Mr. Wilber, formerly joint agent for the bureau and for a German steamship company, had already resigned from the service of (at least) the Associated Press.

A Responsibility Upon Southern Farmers to Feed the Army and Navy.

Editor *Manufacturers Record*:

America's position has been definitely defined and the burden that rests upon the South Atlantic farmers is also clearly and definitely placed. Thirty-seven-cent cotton must not rattle or demoralize the cotton planter. With the realization of high prices for cotton, he must assume and take up the burden of giving the best food to the best soldiers and the best sailors that ever defended a flag, which, crystallized, means supplying our army and navy. If the balance of the world buys the cotton at the maximum price from the South Atlantic States, these States should do their part to intelligently convert the by-products of its crop into beef and fats. The sun never shone upon a land that could produce as much beef fat at the same cost, in the same time, as the State of Georgia can from cottonseed meal. * * *

We believe that we benefit ourselves and render a public service in pursuing our policy in educating the young men of the South in the higher evolution of grassology, and in that connection we announce that we have established what we term a farm engineering department. Farm engineering consists of intelligent surveying, plotting and adjusting the topography of a piece of land, that the geological and geographical features of the different parts of the place may be understood and an economic and definite plan of fencing developed to utilize the water, the grasses and the waste products of the farm. It requires years of practical experience to know how to properly utilize large grass fields in units of 500 acres, where one man can bring his cattle to a common point for various purposes—exhibition, dipping, feeding and vaccinating and economically and wisely distribute them over the place under the control of one man. We have a high-class

expert in charge of this department, and the different farms are used for demonstration and laboratory work. We extend the privilege of this department free of charge to visitors, and we make visitations at minimum cost. It is incumbent upon the experienced and trained farmers of the cotton and tobacco States to demonstrate that there is a useful grass, indigenous to every clime and every soil, and that it is stupid to plow the ground just enough to kill the grass and not enough to make a crop. Johnson grass, Bermuda grass, Japan clover and broom sedge have just as great a field of usefulness in their sphere as bluegrass has in Southwest Virginia.

In this connection we expect in the near future to give the public the benefit of our investigation of the combination of irrigation and the legumes upon the Southern soils.

Let our admonition repress a phase of avarice in attempting to raise too much cotton at 37 cents, and remember when you are producing grasses, beef cattle, hogs and corn you are feeding the boys behind the guns. * * *

In feeding our soldiers we automatically place the round table on the banks of the Potomac, where representatives of nations will meet, and there it will be written in the language of all the world the meaning of opportunity, life, liberty and the pursuit of happiness.

B. FRANK MERANE,
Virginia-Carolina Cattle Co.,
Spray, N. C.; Cascade, Va.

\$4,000,000 Steel Company's Plans.

Representative Joel F. Armistead of the Empire Steel Co., Raleigh, N. C., mentioned last week as chartered with \$4,000,000 capital, writes to the *MANUFACTURERS RECORD* outlining his corporation's plans for manufacturing iron and steel as follows:

"Erect a steel plant with 100,000 tons capacity per annum to commence; later add a bar mill and tube mill. Owing to the economical method of making seamless steel tubes by the Twist continuous hot-roller process, the company will specialize on tubes. Lap and butt-welded pipe also will be made. However, the company expects to eventually universalize the plant. Virginia and North Carolina is quite a market for steel. They ship thousands of tons of scrap every year, which we use in large quantities, and here in North Carolina there is an abundance of cheap power. By saving freight both ways, we have reasons to believe that we will get our share of the business. We anticipate the demand for steel will be greater than the supply for several years. When the profits are too small on other products we will turn our attention to seamless tubes, which we can make by our process and sell at the price paid for lap-welded pipe."

Charles H. Twist of New York and J. S. Long, president of the Gulf Iron Works, Tampa, Fla., are the principal incorporators of the Empire Steel Co., and it is understood that their plans include the construction of a 10,000 horse-power hydro-electric plant to furnish electricity for electrical drive throughout the proposed iron and steel plant.

Postal Department Slower Than Traveler Afoot.

W. A. LENEAVE, Proprietor Crewe Furniture Co.,
Crewe, Va.

I have been reading today your letter to Mr. Howell, editor of the *Atlanta Constitution*, also Mr. Howell's complaint of the inefficiency of the Postoffice Department, and having had considerable delay in getting mail through, I am therefore very much interested. To give you some idea of what my firm has had to put up with, will state that on November 30 the firm wanted something in the way of furniture from the Marstell Furniture Co. of Henderson, Ky., for the holidays. On January 2, 1918, the firm received a letter from the Marstell Furniture Co., dated December 31, 1917, stating our letter dated November 30, 1917, had just arrived that day, December 31. Of course, the holidays were then over. They wanted to know if there was not an error in the date of our letter. We wrote them no, that our letter was written November 30, and was therefore 31 days going across the State line into Kentucky, and I am sure I could have walked there in half that time.

Labor and Housing Conditions in City of Baltimore

[Added to its notably favorable shipping facilities, both by rail and water, Baltimore's living conditions are so conspicuously advantageous as to attract and hold a contented, stable labor population—two prime requisites in the development of a great industrial city. While already an important manufacturing center, students of urban development foresee a still larger growth that will ultimately make of Baltimore one of the greatest industrial centers in the United States.]

Mr. James Carey Martien, who occupies a leading position among real estate operators who have aided in the location of important industries in Baltimore, has written for the Manufacturers Record a summary of conditions which have made Baltimore pre-eminent as a desirable home for labor. Of the outlook for the future, he says:

"Baltimore and its contiguous districts have been amply prepared to house the influx of new labor for the war-time industries as comfortably as the city's labor has been accustomed to living in the past, and there is every indication that further labor coming to this section will be taken care of. While in certain quarters there has been some uneasiness, as in other industrial cities, on the ground that increased building cost might restrict construction activities, a thorough inquiry among the large building interests brought substantially this reply: 'Create the demand; we will supply it.'"

Mr. Martien's article follows.—Editor Manufacturers Record.]

By JAMES CAREY MARTIEN.

Baltimore's pre-eminent position as a labor city is due to these four controlling factors:

- First—Superior housing.
- Second—A comparatively low cost of living.
- Third—Lower wages by reason thereof.
- Fourth—An adequate labor supply.

The housing of a large industrial population without the creation of tenement conditions is not a Utopian dream. Baltimore has accomplished this.

The predominating type of home occupied by the city's workingmen is, of course, the two-story brick dwelling. Building operators erect these houses literally by the wholesale to rent at very moderate prices or to sell on surprisingly convenient terms. During the past five years some 10,000 buildings of this character have been built.

Six to eight rooms and a bath are usually contained in these homes, which are modern in every particular. The fronts of the majority of this type of dwelling are built flush with the sidewalks, the first floor being two or three feet above the walk. However, many, called "porch fronts," have a front porch and a small grass plot between the porch and sidewalk. The former are usually provided with white marble steps and sills, in which the housewife has great pride and keeps as white as daily scouring will permit. The psychological effect of marble steps is undoubtedly excellent. While the newcomer may at first scoff at the habit of scouring marble steps and cement walks daily, it would take a very stubborn will or lazy disposition to maintain this attitude long when for blocks or miles around they are immaculate.

Social and industrial experts have long realized that unless an employe is comfortably housed his value is impaired. When that industrial revolutionist, Henry Ford, conceived his idea of a minimum wage of \$5 per day it is probable that he had this thought in mind. Homes of the Ford Motor Co.'s employes must measure up to certain standards, and investigators are expressly employed to see that they do. One of the particular requirements is a bathtub. For many years Baltimore's city ordinances have required the installation of bathtubs in all homes erected, and, unlike the tubs of a certain large city's tenements, which a writer once remarked were used for coal bins, Baltimore's tubs are used for the purpose intended.

Bathtubs and marble steps may seem irrelevant objects to inject into an article on housing and labor, but they are nevertheless important when utilized in connection with the cleanliness of person and surroundings, which are very closely related to high-class labor.

It is a revelation to the city's visitors to pass through the sections populated by industrial workers and note the marked difference between the conditions existing there and in similar districts of other large cities. This is worth reiterating—the tenement as it is known elsewhere does not exist in Baltimore.

The reason for this favorable condition may be found in the following figures:

Two-story brick homes occupied by owners.....	52,499
Two-story brick homes rented.....	59,230

A home-owning population of 46 per cent!

Through the assistance of the building and loan associations, in the number of which this city leads the country, and the ground-rent system in vogue here, Baltimore has for years been known as a city of home owners. In probably no other city is it possible for a workingman to acquire his own home with such ease and so little ready cash as here. In a great many instances the home is delivered without any cash payment, while in others the prospective owner will make an initial payment of \$50 or \$100.

Assuming that a workingman desires to purchase a home under the building and loan association plan and has no cash available for an initial payment: A weekly payment of \$8.41 will cover all of the charges on a home costing \$1800, subject to a ground rent of \$42 per annum. Of this weekly payment \$4.50 would be applied to the principal, \$2.16 to interest, and the balance, \$1.75, would cover the fixed charges—ground rent, water rent, taxes and insurance. When the buyer makes his weekly payment he is relieved of trouble of personally paying the fixed charges named, the building and loan association attending to those details. Under the system of ground rents prevailing in Maryland, the home owner is privileged, at any time after five years, to redeem and extinguish the ground rent on his home on the basis of a 6 per cent. capitalization. Ground rents on workingmen's homes range from \$42 to \$54 and cost from \$700 to \$900. The average two-story brick house sells for \$1800, subject to the ground rent, making the total cost of the property \$2500 to \$2700.

The system of wholesale building that prevails enables the builder not only to erect and sell homes at a cost far below what the individual might hope to construct a home for, but at the same time the contractor, through his extensive experience, is able to deliver an efficiently planned and well-constructed home.

There has always been, and is now, an ample supply of the above type of homes available for the workman desiring to rent. A report submitted to Mayor James H. Preston by the secretary of the Real Estate Board on November 17, 1917, disclosed the fact that 1970 houses were available; of this total 1286 were considered to be of the class desired for workingmen. The suitable houses were listed under the following classifications:

Rental under \$30 per month.....	702
Rental \$31 to \$30.....	347
Rental over \$30 per month.....	218
Colored property.....	39

In the negro sections houses containing six to eight rooms can be rented for as low as \$2.50 per week.

At this point it might be well to note the fact that the population of Baltimore is greater per square mile than that of any other American city. A bill amending this defect has just been passed to a third reading in the State Legislature, and the law extending the city's limits is practically sure of passage. The figures given above apply only to the city proper, whereas a very large area adjoining the city boundaries is quite as fully utilized for homes as the city. While no record

is available of the total number of dwellings in the districts named, the County Commissioners report that during the past six years a total of about 5000 workingmen's homes have been erected.

Baltimore and its contiguous districts have been amply prepared to house the influx of new labor for the war-time industries as comfortably as the city's labor has been accustomed to living in the past, and there is every indication that further labor coming to this section will be taken care of. While in certain quarters there has been some uneasiness, as in other industrial cities, on the ground that increased building cost might restrict construction activities, a thorough inquiry among the large building interests brought substantially this reply: "Create the demand; we will supply it." An unusually severe winter this year has retarded construction considerably, but it is known that work will be started on hundreds of homes within the next two or three months. As an indication of the capacity of Baltimore's builders, it might be noted that during the month of December, 1916, some 600 homes were in the process of construction.

As a food center Baltimore is without a serious rival. Eleven municipal markets display foodstuffs which for variety and quality are unequalled. The investigators of the British Board of Trade, who some years ago made a study of living conditions in various large American cities, in their report had this to say about Baltimore:

"Baltimore is a noted food-supply center; fruits, vegetables, dairy products and meat are produced in the fertile districts of the State of Maryland, and the shores of the Chesapeake are especially favorable for these branches of agriculture. The city is remarkable among the large cities for the abundance and varied character of its retail markets."

The habit of "going to market" is a fixed one and is not confined to any one class. Rich and poor, market baskets on arm, are found at the markets buying their table supplies. There can be no doubt as to the efficiency of this method of food distribution. In the Lexington Market alone there are three blocks lined on either side with meat stalls, and the space devoted to other provisions is in proportion. The buyer has no difficulty in securing exactly what he desires at prices based on quantity sales and cash sales. The system of credit which prevails throughout the country is not found in the markets, and both the seller and the buyer profit.

The prices for clothing and other necessities are also lower than the average for other cities.

By reason of the conditions outlined above, Baltimore is the home of a contented labor population. A 46 per cent. home-owning population of workingmen can mean only one thing—a stable class of labor, a labor population that will not adjust itself to please the whims of labor agitators. The city's freedom from labor troubles is well known to the industrial world.

The comparatively low cost of housing, food and other commodities necessarily means that the industrial worker can maintain his family and himself for less money than in other cities, and it follows that his wages need not be so large to take care of his requirements.

An investigation in 1915 by the Building Trades Council of Chicago developed that Baltimore had a lower average wage for 23 trades than any of the other nine large manufacturing centers, wages in the other cities ranging from 3 to 40 per cent. higher. While the cost of labor has increased materially in all sections of the country since that date, there is no reason for believing that the relative positions of the various cities have been changed.

The Commercial Development Department of the Baltimore & Ohio Railroad recently made a survey of the labor conditions of the city, interviewing large employers, officials of labor unions and others. A very complete report was made on the subject, and the following figures, relating to wages, were taken from same:

"Common Labor.—Ordinary laborers in Baltimore shops receive \$2.25 to \$2.75 per day, 30 cents per hour prevailing in the Curtis Bay section for steady employment.

"Skilled Labor.—The following scale of wages is now being paid in the steel and shipbuilding industries:

"Four dollars a day represents a fair average wage for skilled workmen in steel and shipbuilding plants,

with the more hazardous and more highly skilled classes running considerably above this figure."

Pattern makers.....	\$4.00, 50 hours per week
Pipe Fitters—	
Journeymen.....	\$3.75, 50 hours per week
Helpers.....	\$3.25
Painters—	
Shop work.....	\$0.40 per hour; 10 hours per day
House.....	\$3.50-\$4.00
Riveters—	
Piece work, averaging about.....	\$5.00
Structural steel workers.....	\$4.50, 8 hours per day
Puddlers.....	\$3.50, 9 hours per day
Helpers.....	1.20, 12 hours per day
(Bethlehem Steel Co.)	
Rolling Mill Men.....	4.00, 9 hours per day
Blacksmiths.....	3.50, 50 hours per week
Machinists (shop).....	3.75, 50 hours per week
Can Companies.....	35-50 cents an hour; 9 hours
47-59½ cents an hour; 8 hours (union shops)	
Munitions Companies.....	50 cents to \$1 per hour
Machine Shops.....	47 cents an hour; average, 8 hours
Shipyards.....	38-47 cents an hour; 9 hours
Steel Plants.....	Average 41 cents an hour; 9 hours
Some few as high as 60 cents; 9 hours	
Tool makers.....	59½ cents to \$1 per hour
Ship Carpenters.....	\$4 per day, 50 hours a week
Caulkers.....	\$4 per day, 50 hours a week
Moulders.....	\$3.75 per day; 8 hours

Baltimore has always enjoyed the advantages of an adequate supply of high-class labor, both skilled and unskilled. While at the present time the supply of skilled labor is, of course, less than it was before the present war period, there is no indication that the surplus has been absorbed to the extent it has in other cities. Large manufacturers are not experiencing any difficulty in maintaining a satisfactory force. In the report quoted above it was stated that the Davison Chemical Co., the Curtis Bay Chemical Co. and the Prudential Oil Co., three of the largest employers of labor in the Baltimore district, all reported favorably as to the ease in securing labor when needed. Ordinary laborers receive about 30 cents an hour, and, while the supply of this class is more or less restricted owing to the higher wages prevailing in munition plants, no serious difficulty has been met in securing men when required.

KILL THE DOGS TO SAVE THE SHEEP.

Definite Action in Kentucky to Increase Sheep-Raising by Protecting the Flocks.

Louisville, Ky., February 8—[Special.]—Strong sentiment against the worthless sheep-killing cur dog as the greatest obstacle to the highly important increase of sheep-raising has been aroused in Kentucky, as indicated by resolutions adopted by the Kentucky Retail Association at a recent meeting held at Louisville. The resolutions declare:

"We view with alarm the rapid decrease of the sheep industry throughout this country, thereby creating a scarcity of wool which threatens to make woolen fabrics for clothing of all kinds a rarity in the near future. The loss to our State in the growth of sheep is absolutely due to the present lax dog laws. We therefore recommend enactment by the present Legislature of drastic laws protecting sheep owners from the dogs, and we regard this as a matter of vast importance to all patriotic Kentuckians. We also urge the Kentucky Senators and Representatives in Congress to use their best efforts to secure the enactment of national laws to protect the sheep industry, and that the incoming secretary communicate this portion of these resolutions to them, as this proposition is in keeping with the fundamental principles of conservation and elimination of waste in these times of trying national necessity."

More than merely endorsing the law, the Kentucky clothiers are now individually in all parts of the State writing direct to their local representatives in the State Legislature, and to their representatives in Congress, urging action on them.

At the Louisville convention of the retail clothiers, man after man made reports of the sheep-raising industry in his particular county, every one of them concluding with the statement that laxity as to cur dogs was the principal factor in keeping down the development of the sheep industry. There were several numbers on the program dealing with the subject, and sheep clubs, which some of the progressive Kentucky clothiers are organizing, were explained. An illuminating paper was that sent in to the convention by Warren M. Meek, a leading farmer and landowner in Auxier, Floyd county, Kentucky, Mr. Meek being detained at home by

illness. Mr. Meek called particular attention to the possibilities in the way of sheep-breeding in the mountainous counties of the State, such as his, and declared that the only reason extensive expansion of this form of husbandry is now impracticable is that there are too many "worthless, non-supporting" dogs at large in the hills. Mr. Meek is doing a big work in arousing public opinion against the cur dog in Kentucky, and his contentions are in line with the fight the MANUFACTURERS RECORD has taken up. His paper is of great interest, and recites a condition which is typical of the whole of the great Central South. Mr. Meek said:

"If thy right eye offend thee, pluck it out" is written in the Bible, and the doctrine is good.

"At this particular time all eyes and minds are riveted on material things, chief among these being food, clothing and munitions of war. War munitions will not always be in such great demand, but the demand for food and clothing, like Tennyson's brook, will 'go on forever.'"

"Having assembled for the purpose of discussing the clothing situation, I read your minds and find the wool situation is giving you no little concern. You have had brought home to you the fact that the great manufacturers are having troubles all their own because of the shattered condition in the wool supply.

"When you think of wool you must think of the farmer, for he is the mainspring of your business. We should try and improve conditions. That's why you are here. And while you are at it, don't forget old Kentucky, and while you are thinking of old Kentucky, proud State that she is, peopled by the best on earth, handsomest women and best horses, don't forget she has many times more dogs than sheep at a time when she needs fewer dogs and many times more sheep.

"In 1860 we had 939,000 sheep in Kentucky and a population of 1,055,684, while in 1917 we had only 452,845 sheep and a population double that of 1860. And right here I want to show you you cannot successfully raise both dogs and sheep in the same community or the same county, and that where dogs are plentiful sheep are scarce. In the good county of Jefferson, made famous by the city of Louisville, in 1917 they had only 687 sheep, while the same year they produced 3147 dogs. In Fayette, the home of Lexington, they had only 688 dogs, but they produced 10,419 sheep. These rank as the best two counties in the State. Now, I am not saying that Jefferson county 'has gone to the dogs,' but I am saying that Jefferson has more dogs than she needs and that she needs many more times more sheep. At least 1000 fine hogs could be fattened on the food Jefferson is wasting on her dogs. Now, I imagine Fayette is not worrying over the dog question, because she has so few they do no harm, while in Jefferson but few farmers could possibly have a heart to tackle sheep-raising.

"All through Kentucky there are thousands of acres of land in absolute waste because of 'too much dog.' And this is especially true of my section, the mountains, for in the mountain sections we have thousands of acres suited to no other purpose than sheep-grazing, but the mountaineer, if anything, is a better dog-raiser than Jefferson county. To illustrate, in 1917 Knott county had 1129 dogs and only 940 sheep. As a matter of fact, Knott county could and should produce more sheep than Fayette. Only her dogs stands in the way.

"Again, in the mountains we can raise but little grain. We have but few level farms and the upland has been so often 'tended' in corn the soil is now somewhere along the Mississippi. Sheep can be raised at a very small grain feed cost and the profit from sheep to the mountain farmer is greater than that of any other livestock.

"It is not necessary to tell you today that we are admonished to save scraps from the table and to look well to the garbage can. Big posters placed in the most conspicuous places warn us to 'waste no food,' yet in Kentucky we insist on keeping and feeding worthless, non-supporting dogs. The food which we are daily wasting in this way would fatten for the butcher at least 50,000 head of fine hogs, and at a time when bacon has soared to 50 cents a pound.

"The farmers of Kentucky are anxious to do more than their full share in the great battle that is now on for the betterment of humanity, and heeding their country's call, they have more than doubled their production in nearly all things except sheep. They are stalled on sheep because the State is flooded with worthless dogs. There are but few spots in Kentucky where sheep can be grazed unmolested by dogs, and this is precisely the

reason the sheep industry has so badly slumped. This is in part the reason the wool supply is so short. The tariff used to figure in the sheep-raiser's troubles, but, having settled that, he now finds that the worthless dog bars his way.

"I am not unmindful that the worthless dog has many strong friends. In fact, the argument is advanced that the ownership of dogs is regarded by mankind as a 'right' which the law cannot successfully change. We all remember that not a thousand years ago the same argument was advanced on the whiskey question. But since then poor old John Barleycorn has been so badly bumped and is continuing to be so badly bumped that the white flag is all but hoisted by his strongest advocates. Then, too, this war has opened our eyes to many mistakes we have been making and has shattered a number of erstwhile ideals. For instance the Government has stopped the making of many things on the ground that they are not essential, and I understand many more things are to be declared non-essential, thus giving the labor, the material, fuel and transportation to things more essential. In speaking of things non-essential, pray tell me what at this time could possibly be more non-essential than an overstock of worthless, non-supporting dogs?

"And in this connection let me call your attention to the fact that just the other day the Courier-Journal carried as a news item the statement:

"Man's best friend, the dog, is being driven from England because he eats too much. With the famine threatening the British Isles, dogs are being sent away, especially to the United States."

"Here you have an apt illustration of the old adage, 'love me, love my dog.' As dearly as we love old England at this hour, as willingly as we eat cornbread that England and her defenders may have our wheat; though allies we are, with hands joined in the great struggle for the right, I fail to see the need we have for England's dogs. Does Kentucky need them? Nay, Pauline, nay.

"While my text says, 'if thy right eye offend thee, pluck it out,' and notwithstanding great damage has been done in Kentucky, and even though dogs have had much to do with decreasing the meat supply and incidentally increasing the price of clothing, I know of no one who seeks to have dogs abolished. However, as a matter of protection to the farmer, the tax on dogs should be increased; a law should be enacted requiring all dog owners to keep their dogs at home and attach a penalty on the owner if he permits his dogs to stray. This law will leave the dog owner properly in possession of his dogs; the honest old farmer could then raise some sheep; our waste land would be put to good use; our wool and mutton supply greatly increased; the farmer would thrive and the merchant would thrive off the farmer, and we all would live happily ever afterwards.

"If you believe the dog tax should be increased and that a restriction should be placed on the movements of dogs, please help us out and see or write your Representative and Senator at once. And remember the placard that hangs in front of you at your desk, 'Do It Now.'"

Would Have Everybody Study Dr. Hillis' Report.

ARTHUR NICKS, Otis Elevator Co., Mobile, Ala.

I have read with interest the article published by you by Dr. Newell Dwight Hillis, and only wish every man, woman and child in this land could be compelled to ponder over this report.

Let me do my little bit by distributing 25 copies, for which I enclose the necessary amount. Also, send three copies of "America's Relation to the World War" and the MANUFACTURERS RECORD for six months.

Too Lenient With Spies.

H. A. STEPHENS, H. A. Stephens Construction Co., Aransas Pass, Tex.

Enclosed find check for \$5 to pay my subscription for one year.

I like the paper very much, and I like the way you go after the Kaiser and his sympathizers.

I think our Government is too lenient with the spies that are among us.

Essential Highway Improvement Urged As War Necessity by Road Builders

[Special Correspondence Manufacturers Record.]

St. Louis, Mo., February 8.

The important services the highways of the country can perform during the war period to relieve railroad congestion, and the consequent need of a Federal policy that will allow the maintenance of existing roads and the construction of new roads that are of absolute war necessity, were the fundamental thoughts expressed in practically all the papers and discussions at the fifteenth annual convention of the American Road Builders' Association held here this week.

The hundreds of men from 33 States who gathered here for the meeting were men thoroughly versed in the splendid auxiliary services the nation's highways were giving to assist in solving the great transportation problems of the country. These men spoke with knowledge and authority, and throughout the discussions during the four-day meeting only the one thought seemed uppermost in their minds, which was to plan and conduct their work so that it would render a real service in helping to win the war.

This analysis is based upon the close observation of the proceedings and talks with delegates from many sections of the country, and is also reflected by the strong patriotic resolutions that were adopted. These resolutions, which follow the main thoughts that have been advanced by other important highway and business associations, were as follows:

Whereas, highway transportation has become a vital factor in the transportation facilities of the nation where suitable roads for its use exist; and

Whereas, the present use of this means of transportation will be greatly curtailed and an enormous road investment loss be sustained unless said roads are properly maintained, connected and extended; and

Whereas, the extension of this mode of transportation would afford much-needed relief during periods of railroad congestion and facilitate the transportation of war and other necessities; and

Whereas, funds have been made available by Federal, State and county appropriations for use in maintenance of public roads; and

Whereas, in order that full efficiency of roads already constructed may be attained, it is necessary that certain connecting links and extensions be built; and

Whereas, in order that the expenditure of these funds may be so directed as to yield the greatest measure of service to the nation in the present crisis; and

Whereas, both maintenance and construction of roads depend largely upon the movement of materials over the railroads and the road-building policy of the Federal Government; now, therefore, be it

Resolved, That the American Road Builders' Association Convention urge upon the Federal Government that it formulate or cause to be formulated and promulgated at the earliest possible date a definite statement of Federal policy concerning road maintenance and essential construction and the encouragement and aid which the Federal Government, by assigning freight car service, will give towards carrying out the plans recommended by the different States through their highway officials during the season of 1918; and be it further

Resolved, That this Association, through its executive committee, does hereby tender its full co-operation and assistance in carrying out such a road policy; and be it further

Resolved, That a standing committee of seven, of which the president shall be a member and chairman, appointed by the president from the members of this Association representing all sections of the United States, be appointed to present these resolutions to and confer with Secretary of Treasury McAdoo, the Director-General of Railroads, and they shall continue their activities on these lines until discharged by this Association, and shall report from time to time in order that their information shall be available to the membership of this Association.

In these resolutions the aim is to impress those in

authority in the National Government with the importance of adopting a policy that will provide for the continued maintenance of existing roads, so as to save the hundreds of millions of dollars already invested, and to allow the construction of those roads that are essential to some phases of our war plans.

These resolutions are directly in line with those adopted by the Chamber of Commerce of the United States and by the American Association of State Highway Officials; and combined show that the complete thought of the highway interests and the business men of the nation are that essential highway improvement should be provided for and continued as a part of our war plans.

When the meeting of this association was planned there were some who tried to discourage it on the plea that only a small attendance could possibly be expected. Despite this discouragement the officials decided to carry out the meeting, confident that those having to do with highway improvement were so impressed with the need of continuing essential road work that they would respond in order to secure some definite co-operative action. That this view was correct is shown by the fact that nearly 600 men from 33 of the States registered, and they evidenced their deep interest by packing the convention hall during every session of the meeting.

The meeting was opened by addresses of welcome by representatives of the State, the city, the Chamber of Commerce and the Missouri State Highway Board. These were responded to by President Breed of the Association, who expressed the hope that the convention would justify the hospitality offered by the city by adopting a program and conducting proceedings that would inspire fresh enthusiasm for highway work, and inaugurate a new epoch in roadbuilding throughout the country. He explained that in arranging the program for this meeting many of the usual topics were omitted because it was desired to show the development of the highways during the last twelve months, and to predicate from that possible future tendencies, and to discover present opportunities for usefulness to our country.

He also called attention to the time given by the program to a discussion of motor-truck traffic, because this was the only solution of the problem of transportation and railroad congestion, and because such traffic is also the greatest destructive force upon our highways. Consideration of this traffic must dominate plans for constructing the roads.

President Breed also said:

"The discussion of highways in relation to the war and military establishment needs no explanation. Through the gloom and tragedy of the war we may see occasional glimmers of light. One of these is that war time needs have aroused a national consciousness of the military and economic value of highways such as never before existed. By taking advantage of this awakening we may hope ultimately to secure for our country such a complete highway system as will insure it unprecedented commercial prosperity and will redound to the credit of the organizations that have fostered the good-roads movement.

"At present the financing of highways, both in construction and maintenance, presents unusual problems. We contend against war-time shortage in men, money, machinery, supplies and transportation facilities. For all of these we are virtually in competition with our Government. It is my belief that through the papers and discussions suggested on the program our organization should formulate some definite policy in respect to new road work and to upkeep of highways.

"Relative to this topic is the consideration of every possible economy in methods of construction. It will be interesting, I think, to consider this from the standpoint of the contractor, as indicated on the program.

"A highway convention naturally desires to know of the most recent features developed in connection with the various types of pavement. I hope that those suggested upon the program will be supplemented by your stores of experience."

In conclusion President Breed expressed the hope

that this convention would mean "a long, positive stride toward our goal; that is, a national system of good roads between every important center, North, South, East and West, and with every remote village and hamlet as tributaries, so that in both war and peace all may contribute the utmost to the nation's need."

The program included the following papers, which, as indicated by President Breed, covered subjects of special interest at this time regarding various phases of highway work and the part they play in our war plans:

"Traffic Laws in Relation to Highway Maintenance and Construction," by W. A. McLean, deputy minister of highways, Province of Ontario.

"Illinois Scheme of Financing by Bond Issue," by S. E. Bradt, superintendent of highways, Division of Highways, Illinois Department of Public Works and Buildings.

"Roads in the Hudson River District with Unusual Construction Features," an illustrated talk on Palisades Park roads, the Hendrick Hudson drive and the Storm King road, by W. A. Welch, chief engineer, Palisades Interstate Park Commission.

"Road Construction in the Northeast Cantonments," by Philip P. Sharples, manager General Tarvia Department, The Barrett Company.

"Road Construction in Other Cantonments," by A. N. Johnson, consulting engineer, Portland Cement Association.

"The Highway and Its Relation to Transportation," by S. M. Williams, sales manager Garford Motor Truck Co.

"The Delivery of the Motor Truck from the Factory to the Seaboard Under Its Own Power," by Raymond Beck of the Highways Transport Committee.

"How to Lay Out and Justify a Program for War Roads," by George C. Diehl, county engineer, Erie county, New York, and chairman of the Good Roads Board of the American Automobile Association.

"The Creation of a More Equitable Contract Between Highway Commissions and Contractors," by J. C. Travilla, consulting highway engineer, St. Louis, Mo.

"New Features in Brick, Wood Block and Stone Block Pavements," by Clifford Older, chief highway engineer, Division of Highways, Illinois Department of Public Works and Buildings.

"Short Cuts in Contracting and the Use of Labor-Saving Machinery," by F. E. Ellis, contractor, manager of the Essex Trap Rock and Construction Co., Melrose, Mass.

"New Features in the Design and Construction of Bituminous Roads and Treatments, and Cement Concrete Roads and Pavements," by Charles M. Upham, chief engineer, Delaware State Highway Commission.

"New Features in the Maintenance and Reconstruction and Repair of Earth, Sand-Clay, Gravel, Water-Bound Macadam and Bituminous Roads, Penetration Method," by Alexander W. Graham, State Highway Engineer of Missouri.

Each of these papers were prepared by men who have made a special study of the subjects covered. Each paper was followed by a discussion, led by a selected man of experience in each subject, and then participated in through a general discussion by members from the floor. Thus, an opportunity was given for bringing out on each topic the viewpoints of men from every section of the country, and this developed information that was found of great value to those attending the meeting, for in many cases solutions were offered to perplexing problems on many questions.

A notable feature regarding these discussions was the relating of many instances as to how the highways, through the motor truck, were serving to meet railroad congestion in many parts of the country, indicating beyond question that but for the highways many sections would have suffered immeasurably. Typical of this was an incident related regarding the thriving mining section around Joplin, Mo., where it was said the motor truck operating over the highways proved the salvation of this great industrial center because the larger part of all the supplies and equipment going to the mines and refineries were brought in through the motor truck.

The officials of the association endeavored to have Major-General Wm. M. Black, Chief of Engineers, U. S. A., attend the meeting and address the members. In response to this invitation a letter was read from Brigadier-General E. Eveleth Winslow of the Corps of Engineers, who stated that it was impossible for Major-General Black to attend, and in his letter General Winslow discussed some phases of the road-building problem. Among these he made a statement to the effect that the benefits derived from improved roads are felt more by the people living along that road. This unusual view as to the advantages of road improvement caused considerable comment among the delegates, and State Highway Engineer R. A. Meeker of New Jersey, in calling the attention of the convention to this paragraph in General Winslow's letter, said that such a statement coming from a high official

in the army showed a lamentable amount of ignorance regarding the value of highway improvement.

On account of transportation conditions it was deemed inadvisable to attempt to hold the usual extensive exhibit of roadbuilding materials, machinery and equipment, but in place of this a smaller exhibit was held in the large ballroom of the Hotel Statler, where the convention took place. Those exhibiting included:

Autocar Co., Ardmore, Pa.
Avery Company, Peoria, Ill.
Baker, John, Jr., New York, N. Y.
Baldwin Locomotive Works, The, Philadelphia, Pa.
Barrett Company, New York, N. Y.
Blisslag Paving Co., New York, N. Y.
Carey Company, Philip, Lockport, Cincinnati, O.
Dunn Wire-Cut Lug Brick Co., Conneaut, O.
"Good Roads," New York, N. Y.
Headley Good Roads Co., Philadelphia, Pa.
Hvass & Company, Chas., New York, N. Y.
Kochring Machine Co., Milwaukee, Wis.
"Manufacturers Record," Baltimore, Md.
"Municipal Journal," New York, N. Y.
Packard Motor Car Co., Detroit, Mich.
Portland Cement Association, Chicago, Ill.
Robeson Process Co., New York, N. Y.
Standard Oil Co. (Indiana), Chicago, Ill.
United States Asphalt Refining Co., New York, N. Y.
Warren Brothers Company, Boston, Mass.
White Company, Cleveland, O.

Great Tomato Industry to Be Established in Brunswick Section by Northern Company.

Brunswick, Ga., February 11—[Special.]—A deal recently closed by the Monmouth Seed Co. of Matawan, N. J., for several hundred acres of land in Glynn county, near Brunswick, and including options to purchase several thousand acres additional, marks the beginning of one of the largest and most potentially valuable agricultural development projects started in the South in recent years. The Monmouth Seed Co. officials are experts in growing vegetables and in the production of seeds, and R. V. Crine, the active head of the company, is well known throughout the country as the originator of several valuable and popular varieties of tomatoes, for the cultivation of which the new enterprise is being located in Glynn county. Besides shipping early tomatoes to market, a catsup factory will be erected on the land purchased, at Hunter's Siding, 14 miles from Brunswick, on the Southern Railway, and seed will be raised and sold. It is the expectation that the company will test out experimentally every variety and kind of vegetable likely to be adapted to this climate.

Not less than 500 acres will be planted in tomatoes alone this spring. The mild winters and early springs make it possible to put tomatoes into the Eastern markets almost as early as those raised in South Florida, and well in advance of points further north.

Until the necessary buildings and houses can be erected and machinery secured and installed, temporary use will be made of a sawmill, buildings and dwellings belonging to L. R. Akin of Brunswick, and located at Mount Pleasant, a few miles above Hunter's Siding. Work has already begun on the tract. Five hundred glass sash have already been received and a hothouse erected for growing the young plants.

Mr. Crine states that his company expects to settle not less than 1000 white families from New Jersey on its lands and adjoining tracts within the next two or three years.

Rich Man in Modest Job.

[From the Wall Street Journal.]

Although the banks of the South are bulging with cash, they still are keen to increase their deposits. Near Charlotte is one of Uncle Sam's great training grounds, and a colonel at the camp has been in the habit of getting his checks cashed at one of the big banks there, always riding over in his car. Which on his last visit resulted in the following conversation between the officer and the cashier:

Cashier—"Colonel, why don't you open an account with us? We certainly would appreciate your business."

Colonel—"Why, my account would be of no use to you, I regret to say. But if you can land that chauffeur of mine it will be worth while. I am poor. He is worth two millions!"

Does War Department Recognize Military Roads as a War Necessity?

AMAZING ATTITUDE OF BRIGADIER-GENERAL WINSLOW, OF THE OFFICE OF CHIEF OF ENGINEERS, UNITED STATES ARMY—IS IT MILITARY BUSINESS TO HAUL FOOD AND MUNITIONS FOR THE ARMY OR ONLY COMMERCIAL?—UNWARRANTED REFLECTION ON PATRIOTISM OF THOSE ATTEMPTING TO BETTER TRANSPORTATION CONDITIONS.

Address reply to
Chief of Engineers, U. S. Army,
Washington, D. C.

War Department,
Office of the Chief of Engineers,
Washington.

January 24, 1918.

Editor *Manufacturers Record*:

1. Your letter of January 3 addressed to the Chief of Engineers was referred to me for action in the matter.
2. There is enclosed herewith an article of approximately 2000 words, which, however, expresses views so much at variance with what you apparently desire that I do not expect you to print it. If you do print it, it is to be with the understanding that you print it entirely; otherwise, it is requested that you return it promptly.

E. EVELETH WINSLOW,
Brigadier-General, Engineers.

General Goethals in the *Manufacturers Record* of January 31 made the following strong statements:

"I am heartily in accord with a policy which will permit highway commissioners of the various States so to plan their work that they will be able to undertake the construction of new highways and of maintaining the existing ones so as to relieve railroad congestion.

"For the past few years the congested condition of the railroads has brought about a constantly increasing use of the motor trucks for handling commodities of various kinds, and at present established motor truck routes exist in several of the States. War conditions materially effect railroad congestion, with an increasing demand for motor truck transportation, and the necessity of properly constructed roads becomes a matter of prime importance. Some relief should be given through the transportation of stone and other road-making materials, if at all possible."

It is interesting to compare this statement with the above letter from Brigadier-General E. Eveleth Winslow, in which a somewhat opposite view is expressed. As requested by General Winslow, his article is printed in full with his letter, replying to one that the *Manufacturers Record* had addressed to the Chief of Engineers of the War Department, asking his views on highway building as a war measure.

We do not at all agree with many of the positions taken by General Winslow. We think he has failed to grasp the significance of improved highways as a war necessity as he has apparently failed to grasp the true significance of the breakdown of the railroad system of the country. This is strikingly illustrated in paragraph fourteen of his letter, in which referring to the construction of railroads he says:

"Yet it cannot be said that the relief of existing conditions is exactly what may be called a military necessity, for the present congestion of rail traffic is interfering not to any material extent with military business, but rather with commercial business."

That statement passes our comprehension. If military business could be absolutely dissociated from all other business, we might be able to grasp the meaning of General Winslow's statement, but since military preparedness and military operations are of necessity based on commercial business in the production and handling of foodstuffs and munitions, there can be broadly speaking no military success without the transportation which makes commercial success of food production, munition production and the distribution of both feasible.

Indeed, it seems that this letter from General Winslow is of a circumlocution kind, which shows a sad lack of a broad conception of how military success of necessity depends upon the general progress of the country, and is directly contrary to the views expressed by General Goethals and others as expressed in the symposium on essential highway improvement as a war necessity, published in the *Manufacturers Record* of January 31.

Another paragraph in General Winslow's letter suggests that the present discussion of the importance of improved highways for long distance traffic has been selfishly stimulated by people who are interested in the production of automobile trucks. That, we think, is a serious reflection upon the statement and intelligence of General Goethals and others, as well as an uncalled for attack upon the patriotism of those who, recognizing the complete breakdown of the railway systems of the country, are trying to find a way to help better the condition.—Editor *Manufacturers Record*.]

By E. EVELETH WINSLOW, Brigadier-General, Engineers, War Department, Washington, D. C.

1. At the present time there are four clearly-defined types of transportation which may be used for passengers and freight—rail, water, highway and air. In this country railway transportation has been developed to a remarkable degree considering the enormous area of the country; water transportation has been developed more or less in various sections, though it has been sadly neglected in many localities where it would undoubtedly prove useful and economical; highway transportation is used to a very great extent, but in general its uses are local only; air transportation of passengers and freight is still in its infancy.

2. Geographic, economic and political situations have favored the development of railroads in the United States almost to the exclusion of other means of trans-

portation. From their very beginning railroads became popular, and charters, grants of land and many subsidies were offered by the Federal, State or local governments to promote their development. The result has been the development of railroads to the comparative neglect of other methods of transportation.

3. Before the advent of railroads it was customary for freight and passengers to be carried for long distances over highways, or trails where highways did not exist, but as the railroads were extended they absorbed this long-distance traffic, with the result that until very recently the use of our highways has been almost entirely restricted, either to regions where there are no railroads, or to what may be called purely local traffic. Such a condition favored the development of separate

and independent road systems radiating from towns or railroad stations, or roads reaching merely from one town to the next, but, except in the older sections of the country, highways primarily intended for long-distance use were unknown.

4. As long as freight transportation by highways depended upon animal-drawn vehicles, the speed and the length of daily haul depended upon the endurance of the animals, and, as compared with railroads, the long-distance hauling of freight under such conditions was slow and far from economical, and therefore was necessarily restricted to places where railroads had not yet been constructed, or to what may be called local traffic.

5. The recent introduction of automobiles, however, has brought about different conditions. Speeds are now possible for both passenger and freight traffic many times greater than that of vehicles drawn by animals, and the length of continuous and uninterrupted haul is controlled merely by the amount of fuel which can be conveniently carried.

6. The first successful automobiles were passenger-carrying, and consequently the revival of interest in interurban and long-distance highway travel began with the demand of tourists for good roads from city to city. As a result of this character of demand, some of the first good automobile roads were what might be called "sight-seeing roads."

7. The successful development of automobile trucks followed the development of the passenger-carrying automobiles by a number of years, but it has caused a demand for long-distance highways, which is certain to become more important and more lasting than the passenger demand. Furthermore, the passenger automobiles were in general built for high speed, and were therefore comparatively light. The automobile trucks, however, are built for capacity rather than for speed, and, due to the weight of the trucks themselves and to the loads they are expected to carry, an increase in strength of many highways bridges has been shown to be necessary.

8. As has been stated, the requirements of motor traffic have already begun to be felt, and have led in some sections to the construction of connecting roads of varying degrees of suitability as to location, so that in the more thickly settled regions of the country one may now, in general, find fairly good roads paralleling the main railroad systems and connecting the larger towns.

9. The growth, however, of such roads has been left almost exclusively to the communities with some assistance from the States, with the natural result that it is not unusual to find one enterprising community providing itself with a good system of roads while its neighbors may not see fit to do likewise. This result is shown in a long-distance automobile trip, where one is apt to pass alternately over sections of excellent roads and sections where the roads are excruciatingly bad.

10. Very early in the history of our country the Federal Government undertook to assist in the construction of a few national highways, but after the era of railroad development had set in, road construction, except in national parks and in the immediate vicinity of Government reservations, remained long neglected. However, by the passage in 1916 of the so-called "Good Roads Act," the Federal Government began again to take an interest in road construction by sharing with the State and local governments the costs of road construction; but under the terms of this act the selection of the roads to be improved in a State, and to some extent the character of the improvement to be made, is left largely to the State authorities. In other words, the Federal Government has not yet undertaken to construct or to assist in the construction of great national highways, such as are seen in Europe.

11. It should be noted, however, that most of these important highways in Europe have been in existence for centuries and long antedate the introduction of railroads. They were for many years practically the only means of communication between the different communities, and their maintenance in excellent condition was an absolute necessity. The character of road construction and the method of maintenance has, of course, varied from time to time with varying conditions of traffic, but the Governmental organizations for their construction, maintenance and betterment have been in existence for many years.

12. In the United States the rapid development of the country followed instead of preceded the era of railroad construction, and consequently the communities have in general grown up along railroads. Having

railroads to depend upon for long-distance transportation, highways were necessary only for local uses and as feeders to railroads.

13. The present congestion in freight traffic is not an absolutely new phenomenon, but has occurred to a greater or less extent at different seasons nearly every year, though it has been largely accentuated in importance this year from the fact that the diminished production last summer of certain necessary commodities, such as coal, prevented the distribution to localities of the supply normally sent when railroad traffic is not congested, and made its movement an absolute necessity at a time when other things also had to be moved. Incidentally, also, the lack of shipping for ocean transportation has caused a congestion of freight at our ports, vastly exceeding the warehouse capacity, and requiring the use of railroad cars for storage.

14. Although this extreme congestion of railroads is now causing a much greater interference to business and commerce than is annually customary, and has resulted indirectly, as it were, from the existence of war conditions, yet it cannot be said that the relief of existing conditions is exactly what may be called a military necessity, for the present congestion of rail traffic is interfering not to any material extent with military business, but rather with commercial business.

15. That in case of invasion or domestic uprising, military conditions might arise which would require the use by the military authorities of highways for long-distance transportation of trucks and material, is undoubtedly true, but the main use of highways must always be mainly commercial, and only incidentally military.

16. In general, the strategic need of highways will be for intercommunication between our main railroad, manufacturing centers, and our seacoast ports. These are exactly the situations where communication will be most needed by commerce. Furthermore, any road built and kept in good condition for heavy motor commercial traffic will serve well for military purposes, so that in general the military and commercial requirements, both as to location of roads, character of construction and the strength of bridges are essentially the same; or, in other words, a system of national highways located and designed for commercial purposes may be expected to serve in general for military purposes as well as if designed specifically for military purposes.

17. Of course, there are some locations along our frontiers, both ocean and land, where, for military reasons, it is advisable that highways be constructed, but where such highways are not as badly needed for commercial reasons as in other places. However, compared with the total mileage of roads in this country, the length of the essentially military roads will probably be extremely small, and can be provided for specially without interfering with the general scheme of national highways.

18. In addition, there are a number of localities in the immediate neighborhood of military posts or cantonments, or leading from these posts or cantonments to nearby cities or to the principal highways, where it will probably be necessary for the Federal Government to undertake the construction of roads; but it should be noted that the Federal needs of these particular roads is due not to a general military necessity, but to the fact that the United States is, as it were, a local owner or a local lessee, and is interested in the conditions of the roads leading to its cantonments, in the same way and for the same reasons as might a corporation owning a large manufacturing plant, as well as the homes of its employees.

19. The present congestion in railroad traffic has suggested the possibility of relieving the railroads to some extent by the use of automobile trucks for long-distance freight traffic, but it is believed that the discussion of this subject is somewhat premature. In a few special cases it may be economically advisable to transport freight for comparatively long distances by automobile trucks, but it is believed, as compared with the cost of freight traffic, the economical limit of automobile truck transportation is still comparatively limited, being now estimated as from 20 to 30 miles, depending upon conditions.

20. Recently a long train of automobile trucks was sent by highway from the place of manufacture in the interior to seaboard, but these trucks were sent light. This was done because they were needed at an early date at seaboard for transportation, and not because it was the less expensive method of travel. Consequently, this much-advertised and much-bepictured trip

must not be understood to indicate the advent of the era when automobile trucks are to render the railroads obsolete.

21. In fact, it is the opinion of the writer that the present discussion of the importance of the improvement of highways for long-distance traffic has been unduly stimulated by those who, for business or other reasons, are interested in the production of automobile trucks. Similarly, the military necessities for the existence of so-called strategic highways seem to have been somewhat unduly magnified by persons interested in the construction of special highways and who have attempted to take advantage of the present agitation concerning war necessities to obtain from Congress large Federal appropriations for the construction of highways really desired, not for military purposes, but because of the value to the immediate localities through which they may pass.

22. Beginning a few years ago, when conditions on the Mexican border were somewhat unsettled, many bills have been introduced in Congress looking to the improvement by the United States of certain specific roads because of the alleged military needs. Some of these bills related to roads on the Pacific coast, some to roads on the Atlantic, some along the Mexican border and some in the interior. In general, the War Department has not favored these special bills, but it has put itself on record as favoring, with minor amendments, the identical bills introduced in the House by Mr. Dent, as H. R. 5165, and in the Senate by Mr. Chamberlain, as S. 2470, which provide for the investigation of the question of strategic and military needs of highways and for making surveys and estimates of costs of these roads. It is thought that these bills place the matter on a proper basis since they provide for a systematic study of the entire subject, independently of local needs or requirements.

23. The construction of highways suitable for rapid automobile and heavy truck traffic is expensive, and to build such expensive roads without providing beforehand for the proper character of maintenance is wasteful and extravagant. Consequently, both for road construction and road maintenance large sums of money will be needed, and the question naturally arises as to where the necessary funds shall come from; the localities, the counties, the States or the Federal treasury. It should be noted, however, that whichever of these government agencies undertakes to stand the bill, the money ultimately must come from the people.

24. As has been stated before, it is the opinion of the writer that the great and principal advantage accruing from the improvement of roads will in general be greatest to the communities through which the road passes, or to the communities which the roads connect, although of course the States, and ultimately the people of the country as a whole, will to some extent share in the resulting increase in general prosperity due to the improvement of the highways.

25. It would appear, therefore, that logically the larger part of the cost of road construction should in general come from the communities, although the States and the Federal Government might properly be called upon to pay a part.

26. The funds which reach the Federal treasury come ultimately from the people, and if the charges on the people due to road construction were distributed among the communities in approximately the same proportion as the cost of road building is distributed, the assistance of the Federal Government in the question of road construction would hardly be needed. Unfortunately, however, this proportion is by no means maintained, and undoubtedly there will be found some sections of the country which, for one reason or another, are too poor to spend much money in road construction, but where a through highway would be of great value to the other localities and to the people as a whole.

27. It therefore appears just and proper that the States and the Federal Government should assist in bearing the cost of the rehabilitation of our highway system, but the extent to which the Federal Government should pay the cost of these roads is a question of policy which Congress alone can determine. It is believed, however, that large appropriations should not properly be made until after careful consideration has been given to the subject, and a system of highways for commercial and military purposes has been carefully studied and prepared. In making this study the needs of the people as a whole should be given primary consideration, and minor attention only should be paid to requests concerning the needs of small communities.

Water-Power Development May Receive Congressional Sanction

OUTLOOK FOR FAVORABLE LEGISLATION AT PRESENT SESSION SAID TO BE IMPROVED—SPECIAL HOUSE COMMITTEE AT WORK ON NEW BILL.

[Special Correspondence Manufacturers Record.]

Washington, D. C., February 8.

The prospects for legislation under which the water-powers of the country can be developed by private capital continue to brighten, and there is every probability that Congress will pass a water-power bill at this session. The latest legislative proposal to this end comes from the three departments having most to do with water-power matters, namely, the War Department, the Department of the Interior and the Department of Agriculture. A water-power bill was prepared by these departments acting jointly and submitted to the President by the Secretaries. The President, after conference at the White House with leading members of the House, handed the bill to Representative Pou, chairman of the Rules Committee, who subsequently secured the passage by the House of a special rule authorizing the Speaker to appoint a special committee to consider all water-power legislation. A special committee was necessary because the department bill combines legislation dealing with navigable streams and also with the public lands. The special rule provided that all pending bills on the subject of water-power should be taken from the committees to which they had been referred and rereferred to the special committee. Representative Sims of Tennessee, chairman of the House Committee on Foreign and Interstate Commerce, was appointed by Speaker Clark as chairman of the special committee. The committee has already had several sessions, and as soon as certain other matters of important legislation now engaging the attention of the members of the special committee are out of the way, active work will begin on the water-power bills.

The committee has before it, besides the bill emanating from the departments, the Shields bill, which has passed the Senate by a vote of 46 to 18, and which deals only with water-power development in navigable streams. It is probable, however, that the bill finally reported by the special committee will deal with both classes of water-power and will be reported as an amendment or substitute for the Shields bill. While the bill as drafted by the departments has created a favorable impression and is considered a great improvement over other water-power measures in which the hands of the departments have been apparent, the special committee is planning to give thorough consideration to all the bills before it, and particularly, of course, to the Shields bill, upon which the action of the Senate was supported by the large majority indicated.

Additional interest in the subject of water-power legislation has been aroused by the action just taken by the Chamber of Commerce of the United States. The Chamber of Commerce has just submitted to its members throughout the country the recommendations of its special committee on water-power development. The recommendations have the unanimous approval of the board of directors of the chamber as well as of the special committee, and are submitted as Referendum No. 24, to be voted upon under the rules of the Chamber, as is customary. While none of the water-power bills pending in Congress are endorsed in the recommendations, broad principles which should govern legislation on the subject are stated in definite terms and a plea is made for legislation which will both properly safeguard the public interest and at the same time contain encouragement for private capital so that money may be secured for the development of the water-power resources of the country.

"One of the first things to be clearly perceived," says the report, "is that water-power developments are not exceedingly profitable undertakings, earnestly sought by capital as a means of securing large returns on an investment; but that, on the contrary, steam-power is the superior of water-power in almost all respects. In order to procure the adequate development of water-power, inducements must be offered."

The report continues:

Water-powers will not be developed unless the conditions

are made comparatively favorable. Present demand for the development of such power comes, not from capitalists, but from communities, which, on account of the high price and scarcity of fuel, are desirous, in their own interest, of inducing capital to make such developments.

In order to secure the adequate development of water-power, it is essential that the subject should be approached with an attitude of mind which recognizes the necessity of making such developments attractive to capital, rather than with that attitude which assumes that such enterprises should be surrounded with as many restrictions as possible.

The special committee which drew up the report was constituted as follows:

L. S. Gillette, chairman, engineer and manufacturer of Minneapolis.

Harry A. Black, wholesale merchant of Galveston; president Black Hardware Co.

Rome G. Brown, lawyer of Minneapolis; vice-president and counsel Minnesota Turbine Co.

Henry S. Drinker, president Lehigh University.

Frank P. Glass, editor-in-chief Birmingham News; chairman Committee on Paper, American Newspaper Publishers' Association.

E. K. Hall, lawyer of New York city; vice-president Electric Bond & Share Co.

Horace C. Henry of Seattle, president Northern Life Insurance Co.

Henry L. McCune, lawyer of Kansas city.

Samuel V. Stewart, Governor of Montana.

George F. Swain, civil engineer of Boston; professor of civil engineering, graduate School of Applied Science, Harvard University.

C. F. Weed, vice-president First National Bank of Boston.

The recommendations of the committee are eight in number, as follows:

1. As to all developments, whether within or outside the public domain, a separate act of Congress should not as at present be required for each development; but the authority to issue permits should be vested in some department or commission designated for that purpose, and under conditions protective of the interest of the public and of the investor.

2. Permits should be issued for a period of at least 50 years, unless at the option of the applicant a shorter period is agreed upon, and should be irrevocable except for cause.

3. A toll should be imposed by the Government only on power developments on the public domain, or benefited by head-water improvements maintained by the Government. Such tolls should be based upon the horse-power actually developed, used and sold. The tolls should be reasonable, and proportionate to the benefits actually derived.

4. If public lands form only a small and incidental part of the entire development, the licensee should be entitled to acquire the right to use such lands, paying the Government fair and just compensation for such use.

5. At the expiration of the license period the Government should have the right to recapture the property for itself or for a new licensee upon the payment of fair and just compensation for the property and for all dependent property, if taken; and if the dependent property is not taken, then fair and just compensation should be paid for all severance damages.

Provision should be made that, all things being equal, the original licensee have priority over any new licensee.

6. At the expiration of the license period the Government should (1) agree with the licensee as to the terms of a new license, (2) recapture for itself or for a new licensee, or (3) continue the license under the original terms.

7. Rates and service should be regulated by State commissions where the service is intra-State, and only by Federal authority where the service is interstate, and the commissions of the States which are directly concerned do not agree or there is no State commission.

The exercise of any Federal jurisdiction over the issuance of securities would be unnecessary and unwise.

8. No preference should be allowed as between applicants, whether a municipality or otherwise, which amounts to the granting at the expense of the Government of a subsidy creating unequal competition in the same market.

In regard to the recapture clause about which much of the discussion over water-power legislation has centered, the committee says:

No element of the proposed legislation is more vitally important than the terms upon which the property of the permittee may be taken from him at the expiration of the permit. If he cannot be assured that in case his property

is taken he will receive "just compensation" therefor, he will invest his money in other enterprises. The words "just compensation" carry an assurance of protection and fair dealing, and a sense of security. Any attempt to amplify or limit "just compensation" by definitions and refinements of "fair value," "original cost" and other expressions upon which there are various theories now under discussion and as yet undefined by the courts, leads to uncertainty, which is the one thing which must be avoided. All these mooted technicalities will be settled by the courts and the commissions long before any of these permits terminate. It is difficult to see why either the public or the investor should not be satisfied to rely upon the expression "just compensation" and trust to its interpretation and application by the Federal courts in the light of public opinion as it shall be reflected in the law 50 years in the future.

While the committee made no recommendations endorsing any of the pending bills before Congress, an analysis of its recommendations shows that it had strong leanings towards the general treatment worked out in the Shields water-power bill. Particularly in the terms of the recapture clause and in the manner of dealing with the question of toll or tax to be imposed by the Federal Government, the recommendations point very clearly to the Shields bill.

The special committee of the Chamber of Commerce made a very careful inquiry into the whole subject, holding session for several days in Washington, and there is every indication that the recommendations will be adopted by a large majority in the referendum vote.

DETAILS OF \$60,000,000 EXPLOSIVES PLANT.

Government Provides for Factory Costing \$45,000,000 and Accompanying Improvements Costing \$15,000,000.

Specifications for the \$60,000,000 explosives manufacturing plant which the Government will build at Hadley's Bend, near Nashville, Tenn., in accordance with details stated by the MANUFACTURERS RECORD in January, provide for an expenditure of \$45,000,000 for the plant proper and \$15,000,000 for accompanying improvements. During the past week the War Department has engaged the Du Pont Engineering Co., a subsidiary of E. I. du Pont de Nemours & Co., Wilmington, Del., to supervise the construction and organization of this big establishment, with its industrial city and other improvements. This engineering corporation has already begun preliminary work and is gathering materials and workmen so as to proceed with its portion of the activities. Among the accompanying betterments will be the installation of an electric-lighting system, water supply and sewers, the paving of streets and sidewalks, the erection of dwellings and other buildings, etc.

The daily capacity of the explosives plant will be 500,000 pounds of smokeless powder and 500,000 pounds of gun cotton, besides various by-products, which will include fabrikoid (a substitute for leather), pyralin (a substitute for ivory and shell), dye materials, ether, paint materials, enamel and lacquer materials. These by-products are already largely used in industry, and their production near Nashville will doubtless lead to the establishment of various factories utilizing them in that city and its surrounding territory. The explosives plant will be built in 10 units, each with a daily output of 100,000 pounds of powder and 100,000 pounds of gun cotton, each unit to be located as a separate factory not contiguous to any other. This entire plant will be five miles long, and a complete railway service will be installed throughout the plant and the town.

Some of the details recently announced included reference to a 5000-acre site, to factory buildings covering 2000 acres, several thousand dwellings for employes, etc., the Thompson-Starrett Company of New York being the general contractor. This contractor is also gathering men and materials, and is already making satisfactory progress with its preliminary work. There will be 20,000 men required in the construction of the plant, which will employ 10,000 men when in full operation after completion. A bridge across the Cumberland River and branch railways are now being constructed to facilitate access to the plant site, Mason & Hanger of Nashville having contract for much of this construction. The immediate living accommodations will be of a temporary nature for the 20,000 workmen who will build the plant, and the permanent facilities

will be for the 10,000 men who will be employed in manufacturing.

It is rumored that the Government's plans contemplate the doubling of the initial facilities for manufacturing explosives, which will require an investment of an additional \$45,000,000, making the daily capacity 1,000,000 pounds each of smokeless powder and gun-cotton. Probably the Government contemplates manufacturing all the explosives used by it and our allies in the great war, which will mean a great saving in the transportation of the raw materials which are now shipped to France and England for their needs in the production of explosives.

Livestock Increases in Mississippi—Sheep Show Only Decline, Due to Depredations of Dogs.

Jackson, Miss., February 8.—[Special.]—Increases in the value and number of livestock in Mississippi which break all records are shown in a report made public here by J. A. Ramsey, special agent of the Federal Bureau of Animal Industry. An important feature of the report is that while cattle, horses and mules and hogs have increased rapidly during the past twelve months, sheep decreased sharply, and have been on a steady decrease for several years.

At one time sheep-raising flourished in the Southern section of the State, where the open ranges and abundant water made the animals very profitable, but the increase in numbers of the sheep-killing cur caused scores of farmers to dispose of their herds. There were only 174,000 sheep in the State January 1 this year, as compared with 193,000 a year ago and 208,000 two years ago. This is true despite the high prices for wool and mutton. More than 50 per cent. of the South Mississippi flocks have been sold off entirely because of the depredations of dogs. A bill to tax all dogs and to diminish the droves of curs that prey on sheep has been hanging fire in the Mississippi Legislature for weeks. It has passed the House, but the Senate is holding it up, despite powerful influences that are being brought to bear for its passage.

Rapid growth of the creamery business is reflected in the increase of milk cows for the past twelve months. It is estimated there are 54,000 cows in the State with creamery connections and 454,000 kept for home purposes, as against a total of 475,000 January 1, 1917. The annual gross income from the milk of these animals is placed at \$65,379,000. Their value per capital increased from \$38 in 1917 to \$47.50 in 1918. Including milk cows there were 1,152,000 cattle in the State January 1, 1918, as against 1,050,000 January 1, 1917. Their average price the head had increased from \$16.40 to \$21.90.

The value of hogs per capita doubled from January 1, 1917, to January 1, 1918. Last year they were worth \$7.50 a head; this year, \$15. There are now 1,902,000 hogs in the State as against 1,689,000 a year ago.

The aggregate value of all farm animals in Mississippi January 1, 1918, was \$130,914,600, compared with \$93,763,000 January 1, 1917.

Approves of All We Have Said.

Z. W. WHITEHEAD, Managing Editor Southern Lumber Journal, Wilmington, N. C.

I tender you my hearty and sincere congratulations upon the magnificent work you are doing, and the notable services you are rendering the South. I know of no man or institution that compares in the services rendered to that of yourself and the MANUFACTURERS RECORD. Your editorials ring clear and your sentiments are shared by every patriotic citizen who has any red blood in his veins. In short, you have commended everything worthy of commendation and condemned that which merited condemnation.

Doing Good to His Neighbors.

W. D. DAVIS, Tampa, Fla.

Enclosed check for subscription.

I most heartily approve of your stand in this war. I appreciate reading your articles and then pass on the magazine to others to read.

Industrial Housing Problem Solved by Southern Shipbuilding Plant

MODEL VILLAGE, WITH HOMES, PARK, HOTEL, WATERWORKS, ELECTRIC LIGHTS AND RECREATION ROOMS ESTABLISHED BY COMPANY FOR WORKMEN'S BENEFIT—GENERAL MANAGER DECLARES COMPANY ADDS TO ITS PROFITS BY DOING ITS DUTY BY ITS MEN.

[Special Correspondence Manufacturers Record.]

Pascagoula, Miss., February 8.

Where half a year ago stood a virgin pine forest, a model little city, with modern municipal improvements, laid out along most approved lines by engineers, architects and landscape gardeners, is springing up at the site of the International Shipbuilding Co., an enterprise inaugurated by Henry Piaggio, and now one of the big shipbuilding plants of the Gulf coast. Homes, parks, amusement and recreation halls, a hotel, water-works, electric lights, everything conducive to the comfort and well-being of the workmen and their families is being provided.

Plans have been prepared for the erection of 300 three, four and five-room cottages of varying design. A number of these houses are already under way; some have been completed and are now occupied.

Owing to the cheapness of Southern pine lumber, and

room house, papered and weatherboarded, the cost of which is \$1100 to \$1200. They rent for \$16 a month, and have the same conveniences as the four-room house. Some are equipped with fireplaces; others are to be heated with stoves. The rooms are 13x14.

For the poorer class of labor three-room houses are built, the cost of construction and rental from which are about on the same basis as for the more expensive property.

Blueprints of these houses may be had from the Southern Pine Association, New Orleans, La.

Men desiring such accommodations will be taken care of in the two-story hotel nearing completion. The hotel has 52 bedrooms, with lobby, dining-room, kitchen and bathroom. Two big granite fireplaces adorn the lobby and dining-room, which are beamed, with panel wainscoting up about five feet. Practically all rooms have



CHARACTER OF HOMES BUILT FOR SHIPYARD SUPERINTENDENTS.

its easy availability in large quantities, it has been found possible to build at a cost between \$500 and \$600 attractive and substantial four-room California bungalow type cottages, containing kitchen, dining-room, living-room and bedroom, with bathroom, kitchen and pantry, front and rear porches, electric lights, water and sanitary connections. The rooms are 12x14 in size, ceiled and painted with two coats of paint. The living-room and bedroom are provided with fireplace and mantel. Rough boards, stained, cover the exterior of the house. Although practically identical inside, these houses are made to vary considerably in outward appearance. Plots are so arranged that, in addition to front yard, each family has garden space in the rear. The houses rent for \$3 a week, or \$156 a year, which gives the company a liberal return on its investment. A somewhat more pretentious structure is the five-

outside exposure, with at least two windows. They are ceiled and painted, with electric lights and wall switch in every room. On the exterior the first floor of the building is stained in California bungalow style; the second story is weatherboarded. A wide porch extends along the front of the building.

The shipbuilding company will lease the hotel to a practical hotel operator.

Between the hotel and the main entrance to the shipyard is a stretch of ground still covered with virgin pine trees. This has been set aside for a park, and will be beautified under the direction of a landscape gardener, who will be permanently employed to see that front lawns and streets and the general appearance of the town are kept attractive.

At a convenient point near the hotel will be situated an amusement and recreation hall. A reading-room,



HOTEL FOR ACCOMMODATION OF SHIPYARD EMPLOYEES.



STANDARD FIVE-ROOM HOUSE FOR SHIPYARD EMPLOYEES.

billiard and pool rooms, shower baths, etc., will be free for the use of all employees. A place for motion picture exhibitions is to be added later.

Speaking of the motives actuating his company in undertaking a housing program of such proportions, H. H. Roof, general manager, said:

"Aside from its purely industrial features, a ship-building plant such as ours is primarily a human institution, an organization made up of a number of men, an aggregation of individuals affected by good or evil influences that reflect themselves in the general morale of the force and its efficiency or inefficiency.

"It therefore follows that whatever is good for the individual must necessarily be good for a collection of individuals, for a company or a corporation.

"We are looking after the welfare of our men, first, because it is our duty as employers of labor to see that our employees are provided with clean, comfortable,

wholesome surroundings; that they are furnished recreation and amusement of the proper kind for their idle hours; that they are afforded every opportunity for the development of the best that is in them. A man worth anything at all is worth taking care of.

"The well-housed, contented workman is more efficient than his ill-cared-for brother, and even though nothing else were taken into consideration, it is my belief that from the standpoint purely of dollars and cents it is the best sort of investment that any company could make, to invest in satisfied and loyal employees.

"An employer will be very short-sighted if he fails also to realize that we are approaching the time when there will be a serious labor shortage in the United States. And labor is going to stay with the man and the company which appreciates the services of a good workman and takes a genuine and sincere interest in his welfare."



TYPICAL FOUR-ROOM HOUSE FOR SHIPYARD EMPLOYEES.

Coal and Coke Production Still Below Normal.

In its report on bituminous coal production for the week ending February 9, the Geological Survey says that for the third time in two months the rate of production fell below 1,600,000 tons per working day, a drop of more than 200,000 tons as compared with the normal. The total production of bituminous coal during the week ended February 2, including lignite and coal made into coke, is estimated at 9,423,000 tons. Weather conditions remained unfavorable; the continued cold was in part at least responsible for the slowing down of transportation, which restricted production.

The output of beehive coke continued to decline. Production for the week is estimated as only 446,000 tons, or 74,000 tons per working day.

Shipments of anthracite were reported as 34,804 cars, as compared with 33,406 during the preceding week.

For the country as a whole the production of coal during the week of January 26 amounted to 66.1 per cent. of capacity. Car shortage remained the dominant factor limiting production. To it were ascribed losses amounting to 26.6 per cent. of full-time capacity as against 7.3 per cent. for all other causes combined.

The ratio of production to capacity rose from 55.8 per cent. during the preceding week to 66.1 per cent. This partial recovery from the extreme depression of

the week before was largely due to improvement in Illinois, Indiana, Western Kentucky and Ohio. In Illinois the production ratio rose from 48.4 to 74.3 per cent.; in Western Kentucky from 59.2 to 77.1 per cent.; in Indiana from 44.0 to 67.3 per cent., and in Ohio from 40.3 to 53.3 per cent. Improvement in Pennsylvania and West Virginia, though general, was less marked. In these States all districts except Irwin Gas, Winding Gulf and New River and Pocahontas reported partial recovery. Southwestern Virginia and Alabama shared in the general improvement.

The prolonged depression affecting the beehive coke industry remained unbroken. Fifty-six of the principal operators in the Connellsville and adjacent districts reported a production amounting to 47.0 per cent. of their combined capacity as rated by the railroads.

The output of by-product coke has been fluctuating with that of bituminous coal, rising from 65.9 per cent. of maximum capacity in the week of January 19 to 70.6 per cent. in the week of January 26. Failure of the coal supply caused by inadequate transportation remained the only factor of importance limiting production. Losses due to this cause amounted to nearly one-fourth of the maximum capacity.

Four-frame type electric motors of 450 horse-power will be installed by the Mandeville Mills of Carrollton, Ga.

Food Production and Conservation Enthusiastically Favored by Texans.

Austin, Tex., February 9.—[Special.]—It is planting time in Texas, and the Lone Star State is now engaging in a tremendous drive for both food conservation and food production.

Governor William P. Hobby has issued a proclamation for a "Seed-Sowing Day," and has called on all ministers to deliver sermons to their congregations directing their minds and hearts to the practical importance and bold necessity, and even their obligation, to sow seed and help feed the world.

Twenty-five thousand public school teachers have been requested by the State Superintendent of Education to organize their pupils for the cultivation of war gardens, with the hope of having 1,000,000 gardens in Texas this year. The Patriotic Garden League of Texas is being organized, with the expectancy of a membership of 100,000 boys and girls, who will do their utmost to produce all that is possible in home, garden and field.

The State Food Administration and the State Council of Defense have launched the "Texas food and feed production campaign," co-ordinating all State organizations that have heretofore been working for the production and conservation of food. Frank Kell of Wichita Falls, a prominent miller and capitalist of the State, is chairman of the campaign, and is devoting practically all of his time to its activities.

Notwithstanding that the State has suffered in many sections during the past year from the severest drouth in its history, county councils of defense, food administrators and demonstration agents are arousing the people to a high pitch of enthusiasm with the battle cry "Food will help win the war, and a garden for every home is a war measure of the first importance."

Candidates for public office are also helping by having their announcement cards printed "Let's help our boys win the war. Produce more, eat less, waste nothing." One candidate for the Legislature, however, has departed from the time-honored use of announcement cards and has written Mr. Kell that he will have none printed, but will buy thrift stamps instead.

The school children of Houston are singing conservation and production songs to the tunes of "My Old Kentucky Home," "Yankee Doodle" and "Battle Cry of Freedom." The words to the latter are as follows:

We've an army now in camp of a million boys or more,
Shouting the battle cry of feed 'em.
And we'll furnish them with guns and with food a mighty store,
Shouting the battle cry of feed 'em.

CHORUS.

Our Allies forever; Hurrah, boys, Hurrah!
Down with the Kaiser, up with our law,
For we'll rally 'round the flag, boys; we'll rally once again,
Shouting the battle cry of feed 'em.

We have bought a bond for freedom, and boosted Uncle Sam,
Shouting the battle cry of feed 'em.

We have cut our daily ration to Johnny cake and jam,
Shouting the battle cry of feed 'em.

CHORUS.

Yes, we'll rally 'round the flag, boys;
We'll rally once again,
Shouting the battle cry of feed 'em,
With potatoes on the hillside, and wheat upon the plain,
Shouting the battle cry of feed 'em.

CHORUS.

If the example of Texas and her people is followed by other States, there can be little doubt that the country will produce an adequate food supply for the soldiers and the civil population of the allied countries and do much to bring victory to the forces fighting for the world's freedom.

The University of Tennessee, Knoxville, has recently issued two bulletins on the economical firing of Tennessee coals for power-plant boilers and also for house-heating, each being devoted to consideration of one of these uses. The information which they present is given without employing technical language, but is simple and direct, so that anybody interested may comprehend. Everyone concerned with the management of a fire, no matter whether they are occupied only with a kitchen stove, a common hot-air furnace or else with a big fire for heating a mammoth boiler in some industrial plant, will discover profitable reading in one or the other of these pamphlets.

Business Men Asked to Insist on War Efficiency

THE MERCHANTS' ASSOCIATION OF NEW YORK REQUESTS OTHER ORGANIZATIONS TO URGE SENATORS AND REPRESENTATIVES IN CONGRESS TO CREATE A BOARD OF WAR CONTROL AND A DIRECTOR OF MUNITIONS SO THAT EFFORT MAY NO LONGER BE WASTED—TELEGRAPHIC REFERENDUM FOUND IMPOSSIBLE.

New York, February 7.

In order to bring about centralized control and greater efficiency in making preparations for the participation of the United States in the war, the Merchants' Association asked the Chamber of Commerce of the United States to submit a referendum to its members providing for the creation of a Board of War Control and a Director of Munitions.

Telegraphic Submission Impossible.

In view of the fact that a referendum ordinarily occupies 45 days and of the urgent need for action at this time, the association asked that the referendum be submitted by telegraph.

This has been found to be impossible, and therefore the association is itself appealing directly to all business organizations in the United States, setting forth the chaotic situation among the various departments, branches and bureaus of the Government and asking them to express directly to their representatives in Congress their support of the proposal advanced by the Merchants' Association.

The question has been submitted by the Merchants' Association to other organizations in the following letter:

"We urgently request that you give immediate and most earnest consideration to the appended preambles and resolutions, which advocate the application of indispensable business methods to the biggest business problem which ever confronted any nation; namely, speedy and effective preparation for the war.

"If you agree with us that the big business of war cannot effectively be carried on except by adopting the method of centralized control which prevails in every big business in the world, and by entrusting that control to men of business genius and proved experience in business management, we urge you to aid in bringing about such control. This is exclusively an economic and business proposition.

"The most effective way in which to aid is to make your views known to your Congressmen and Senators. We urge, therefore, that you adopt appropriate resolutions and transmit them at once to your representatives in Congress and seek active publicity co-operation on the part of your local newspapers."

Statement of Situation.

This is followed by a statement relating to the resolutions and explaining the situation as follows:

"No big business with many branches and divisions can be properly carried on without a complete programme with all its parts clearly defined and so adjusted to each other as to prevent all conflict. No such programme, however excellent, will work itself. Each of the various parts may be entrusted to able men; but if each of those men undertakes to operate his part without reference to what the others are doing, the result will be confusion in all the parts, none of the parts will work well, and the machine as a whole will function badly.

Common Control Needed.

"It is indispensable, therefore, that all the parts be subjected to a common control in order that none may interfere with others, and that the programme as a whole may be perfectly correlated and proceed with the highest degree of speed and efficiency.

"Every great business corporation has numerous departments, each of which is in charge of an experienced and able man. While each of these men has ample authority within definite limits, his authority does not comprise important matters of policy, nor may it be so exercised as to conflict in operating details with other departments. Every department is, therefore, subordinate to a general manager, who not only imposes policies, but supervises and co-ordinates the operations of all departments in such manner as to pre-

vent conflict and obstruction, to promote the highest efficiency of each, and to insure that the machine as a whole shall function properly.

Must Have General Manager.

"No big business machine can function effectively without a general manager to so direct, control and co-ordinate the operations of its department heads that they shall fully conform to and promote the comprehensive programme prepared and imposed by the higher authority having power to determine policies.

"At the present time a very large part of the energies of our Government are applied to a vast business undertaking—the preparation for war.

No Co-ordinating Control.

"This work devolves upon the executive branch of the Government, with the President at its head. It is divided among several departments (each having a number of co-ordinate bureaus) and a number of more or less independent commissions, boards and committees. Some of these divisions operate under powers delegated to them by the President, others under specific law, but all of them operate without a common program, and, in the main, independently of each other. Although all are legally subordinate to the President, nevertheless they are for all practical business purposes not now under any effective co-ordinating control.

President Cannot Follow Details.

"There is imperative need for a controlling head, directly under the President, to decide upon policies subject to the President's approval; to prepare a general programme; to define the part to be taken in such programme by every subordinate department, board or division; to supervise, control and co-ordinate all their operations, and in general to perform the functions of a general manager in a great business corporation. The President has an infinity of matters of the most fundamental importance constantly pressing upon him, and the demands upon him are so great as to make it a physical impossibility for him to acquire the knowledge of detail and to exercise the supervision without which the affairs of the departments cannot be properly controlled and co-ordinated. It is not proposed to deprive him in the slightest degree of any of his Constitutional powers, but simply to place at his command an agency which can devote itself exclusively to a mastery of such details and to the supervisory work necessary for effective operation, thereby enabling the President not only fully to be informed of the operations of every branch of the Government, but also to so direct and control them through a board of general managers as to insure the complete carrying out of his policies.

Departments Now Competing.

"The need of a co-ordinating power cannot be disputed by anyone competent to judge thereof. The War Department, the Navy Department, the Shipping Board, the Emergency Fleet Corporations and other Government agencies are now competing with each other in the matter of munitions and supplies in such manner that none of them can command all the facilities necessary to carry out parts of essential programmes upon which the conduct of the war is dependent. Under the present lack of policy, factories which might have been employed upon essentials have been employed upon the production of munitions and supplies which cannot possibly be used for a year to come, whereas their activities have been urgently needed in the production of other materials required at once.

Practical Illustrations.

"The function of properly providing for the fuel supply of the nation cannot be carried on except by close co-ordination with transportation facilities. No such co-ordination has been effected or could be ef-

fectured under the existing lack of common direction. Huge efforts have been made to expedite the building of ships without adequate provision for transportation facilities and for the provision of fuel, whereby much of the material without which shipbuilding cannot proceed has not been manufactured, and even when manufactured cannot be transported.

"The work of shipbuilding cannot go on to the necessary extent without ample labor supply, which has been precluded by failure to provide the necessary housing accommodations for workmen.

Chaotic Conditions.

"These instances could be multiplied practically without limit. Chaotic conditions prevail in every branch of the Government, despite the fact that many able and experienced men are in charge of these various affairs, but their efforts have been limited by reason of the lack of a common programme and co-ordinating control.

"There will be no dispute in any quarter that these conditions should be abolished and more workable conditions substituted. Commendable progress has already been made toward that end in the War Department, and has been begun in the Fuel Administration, but better organization within the limits of any or all departments does not meet the existing exigency. Departmental reforms are highly desirable and must be enforced, but however good a departmental organization it cannot be fully effective unless the operations of each department be correlated with those of other departments so that there shall be no cross-purposes, no confusion and no independent programmes.

"Because of these conditions the Merchants' Association of New York urges upon Congress the necessity for a Board of War Control, subordinate only to the President of the United States, and a Director of Munitions, who, subject to the Board of War Control, shall have sole control for providing of munitions and supplies required for the purposes of the war."

The Resolutions Adopted.

This is followed by a statement from Mr. S. C. Mead, secretary, setting forth the action taken by the board of directors, as follows:

"The Board of Directors of the Merchants' Association of New York, at a special meeting held January 25, 1918, adopted the following preambles and resolutions, and directed that a copy be sent to each member of Congress:

WHEREAS, The efficient conduct of the war in which this nation is now involved is a paramount purpose of the American people, rising above all other considerations, political, sectional or personal; and

Whereas, Such efficient conduct is possible only through such organization as will centralize control, prepare programmes, clearly define all duties, avoid all conflicts of jurisdiction as between departments and bureaus, such as the War Department, Navy Department, Marine Corps, Shipping Board, Fuel Administration and others; and ensure complete co-ordination; and

Whereas, The conduct of the war is apparently characterized by lack of co-ordination; by independent planning by unrelated and unco-ordinated authorities acting without agreement; by absence of power for quick decision and action in vital matters, which conditions tend to confusion, delay, waste and low efficiency; therefore be it

RESOLVED, That, in order to meet the imperative demand of the American people and of the Government for the speediest possible preparation for and the most vigorous conduct of the war, for which Congress has conferred unparalleled power upon the President, and has provided means almost without limit, the machinery of administration should be strengthened by the creation of

1. A Board of War Control, to be appointed by the President and approved by the Senate and subordinate only to the President. It should consist of men of pre-eminent ability unburdened by departmental routine, and should have authority, in respect of all matters relating to planning and preparation for, and direction of the war, over all other departments and officials of the Government; such Board to supervise, direct, control and especially to co-ordinate the war preparations of every other department and branch, and to that end to be empowered to reorganize in its discretion any existing departmental organizations or methods.

2. A Director of Munitions, who, subject to the Board of War Control, shall have sole control of providing all munitions and supplies required for the purposes of the war; and be it further

Resolved, That the Congress is earnestly requested immediately to pass the necessary legislation fully to carry out the purposes of the preceding resolution, and to repeal any existing legislation conflicting therewith.

Knit tubing will be manufactured by the White Cotton Mills, organized at Graham, N. C., by W. E. White and R. B. Tate.

News and Views from Our Readers

Wants Information to Disseminate in South America.

CHARLES LYON CHANDLER, South American Agent, Southern Railway System, Chattanooga, Tenn.

Mr. Carlos Alberto Navarre, 725 West Main street, Knoxville, Tenn., an Argentine student at the University of Tennessee, is writing a book in Spanish describing the resources and progress of the Southeastern States. He is anxious to get in touch with secretaries of chambers of commerce and others who may be able to supply him with pertinent detailed information.

I have given him several copies of your valuable paper, which have been of great interest to him. Mr. Navarre is writing weekly articles on the progress of the Southeast for some of the leading newspapers in Buenos Aires, and is anxious to make this book as complete as possible.

I greatly enjoy reading your paper and find it of material assistance.

Small Water-Power Development Proposed for North Carolina Town.

F. S. DRURY, Morganton, N. C.

I have a water-power corn mill three miles from Morganton and about one mile air line from Calvin, on the Southern Railway. Grinding is very dull from various reasons, chiefly other mills at town and above me. Am of opinion that a knitting mill would pay, as cotton mills are located at Morganton which sell thread. Possibly some other line might pay better. I have about 12 horse-power, but can get 50 horse-power by law by condemning some land above at a reasonable cost. I am looking for a party with from \$5000 up for the improvement of this power plant.

Winning the War the Nation's Foremost Business.

REV. W. H. BAYLOR, D.D., Superintendent State Mission Board of the Maryland Baptist Union Association, Baltimore, Md.

I quite agree with you that the winning of the war is a thing that all of us should remember is first and foremost. You have from the beginning, by your striking and stirring editorials, done your part towards this end. This country's business, in co-operation with our Allies, is to win this war, and when this is done, as it will be, the MANUFACTURERS RECORD will have no small share in the glory.

To Drain 20,000-Acre Swamp Tract in Alabama

J. RICE SCOTT, Engineer, Montgomery, Ala.

We are now just starting the preliminary survey in the Big Swamp, locally so called, which is really the valley of the Letohatchie Creek in Lowndes county, Alabama.

This is probably one of the richest bodies of land in the entire black belt, there being some 20,000 acres subject to overflow, which, when drained, will be the very cream of the black belt.

We will be ready for bids on this work early in April, and it is expected that the work will cost approximately \$150,000.

Look Out for Tramps and Pro-Germans.

P. J. NORFLEET, Secretary and Treasurer Franklin Phosphate Co., Newberry, Fla.

I rather think it would be a good plan for you, if you have not already done so, to sound an alarm against tramps. I think my place was set on fire by a tramp, and for what reason I do not know. I am farming extensively, and operating a phosphate plant, and perhaps the motive may be there.

My house was burned at night, January 8. I cannot possibly see how it could have caught on fire, and do not think such was the case, and am inclined to believe that it was set on fire. This view is made stronger be-

cause of two other fires in this same locality about the same time. There were one or two smaller fires, smaller places, and a fire near Gainesville on the night of the 14th.

I mention these facts, as I am inclined to believe all the fires were the result of tramps. There was a tramp here on the morning of the 8th. No one saw him during the day, but he was again seen about night on the 9th.

Just what the motive may be I do not know, but it might be to hamper those engaged in phosphate and farming operations, and might be the work of Germans in some way. It is surely strange that all the fires, which are in the best buildings, should occur so rapidly in same locality.

I send this, as it might be a good plan for you to give publicity to it and let other communities watch out for tramps and take them up—for there is no need at this time for anyone not working—and make them work.

Editorials Have Good Effect.

JAMES O. SPINKS, care Glynn County Bank, Brunswick, Ga.

I am enclosing my check for a three months' subscription to the MANUFACTURERS RECORD, and I would like to have it date back so as to give me the last four issues. It has not been convenient for me to get your good paper for the last month, and I do not feel that I am keeping up with the news if I fail to get it, and I believe that no paper has done as much good for the country during the last year as the MANUFACTURERS RECORD through its editorials. I can vouch for their good effect in places where I have been, and if everyone could read them I think we would be able to put up a stronger front to the enemy we are now at war with.

Taken by Texans as Texts for Talks.

CHAS. H. FLATO, JR., the Kingsville Lumber Co., Kingsville, Tex.

We look forward with a great deal of pleasure to every copy of your splendid paper. Especially do we want to compliment you on your wonderful patriotic editorials.

It may be of interest to you to know that our "Four-Minute Men" here get a great deal of information from your paper for their talks. We make it a rule to have them see and read every copy, and they are very positive in their favorable comments on your splendid work.

Liquor Traffic a Block to All Reform.

FRANK COLLINS, Newark, Del.

I am enclosing check for \$5 for this year's subscription.

I think you are absolutely right in your stand on the annihilation of the cursed liquor traffic. My observation is that this traffic is not only hellish in itself, but it uses its power to block or delay about every other suggested reform.

Most in Demand.

W. R. SIMPSON, Secretary and Treasurer Commercial Club, Mt. Airy, N. C.

We enclose check for \$5 in payment of this year's (1918) subscription to the MANUFACTURERS RECORD.

Of the dozen or more publications on our reading table, the MANUFACTURERS RECORD seems to be in most demand, and we are glad indeed to be able to continue our subscription.

Wants Mattress Factory.

W. S. DE WITT, Secretary Orlando Board of Trade, Orlando, Fla.

We should like to get the location here of a factory to utilize Spanish moss in the manufacture of mattresses. There are great quantities of the moss here, labor is cheap and shipping facilities are good, and we believe such a factory would do well.

How Texas Is Meeting the Housing Problem.

Austin, Tex., February 7—[Special.]—It is shown by reports received from the different larger cities of the State that the home-building campaign which was inaugurated a few months ago for the purpose of providing accommodations for the unprecedented influx of new residents and transient is bearing fruit. In the city of San Antonio there is under construction at this time 318 new dwelling-houses, including several large apartments or flats. In Houston, Fort Worth, Waco and El Paso building operations are under way in order to meet the existing demands for living accommodations. The military population of San Antonio, exclusive of the wives and families of the several hundred army officers, is now approximately 88,000. It is claimed that the civilian population of the city has increased more than 50,000 during the past 12 months, and that there are now more than 250,000 people housed in the town and the different adjoining military cantonments and camps.

In Houston, where there are about 30,000 soldiers, the need for more residences was severely felt, and the situation is being remedied as rapidly as possible.

The same is true as to the other cities of the State. The growth of Dallas, although it is not a military center at this time, is steady and satisfactory. Most of the eastern half of Texas is in very prosperous condition. It was outside of the drouth belt, and its production of various kinds of crops last year was the heaviest ever known there.

All of the towns of that part of the State are engaged in building operations on a more or less extensive scale. The smaller towns of Central, Southern and Western Texas were hard hit by the drouth, and very little in the way of improvements is being done in any of them at this time.

No Discrimination in Matter of Nitrate Distribution by Government.

Washington, D. C., February 7—[Special.]—From an inquiry recently received it would appear that an erroneous impression appears in some quarters as to the plans of the Agricultural Department for distributing nitrate to farmers. The inquiry indicated the impression that no nitrate would be sold to farmers above the Mason and Dixon line. The facts are that the Department of Agriculture has placed no restrictions on the sale of nitrate by the Government. So far as available, the 100,000 tons to be purchased by the Government will be apportioned among those who desire to obtain it.

Personal inquiry at the department today divulged the fact that ships carrying this nitrate will be sent as far north as Baltimore under arrangements already made. It may be that they will go to ports still farther north, dependent upon whether the demand in those sections is large enough to absorb an entire cargo. The shipping situation generally has a bearing on this outlook. The Agricultural Department is entirely willing to make a distribution to all of the Atlantic and Gulf ports, but the Shipping Board is forced to consider the matter of speedy deliveries and quick unloading in its efforts to meet the enormous requirements of the war in so many different ways.

Even if the nitrates are sent no farther north than Baltimore, the experts of the departments think farmers "above the Mason and Dixon line" will be able to pay the overland freight and still procure their supply cheaper than by buying from private dealers. At all events, there is no intention on the part of the Government to discriminate in favor of any particular section or against any other.

The Cotton Movement.

In his report of February 8 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 192 days of the season was 8,921,772 bales, a decrease under the same period last year of 1,601,929 bales. The exports were 2,660,692 bales, a decrease of 1,181,700 bales. The takings were, by Northern spinners, 1,616,989 bales, a decrease of 357,492 bales; by Southern spinners, 3,089,424 bales, a decrease of 65,503 bales.

What Norway Has Suffered and How Its People Feel.

Christiania, January 3.

Editor Manufacturers Record:

I have read your "America's Relation to the World War," and have found it very interesting and true reading. I have also read the letter from Victor, and am pleased to learn he has been interned. Almost all my countrymen have been feeling the same way about the Germans as you. They are now getting very bitter against your country, as it has stopped all exports to our country. They are arguing the matter in this way:

Norway has, in proportion to the size of the country, one of the largest fleets of merchant ships in the world, and they have been working for the Allies since the beginning of the war, and have done them great service. Now, United States has taken almost all their ships, besides stopping all exports of necessary articles to them. Has Norway deserved this? Has not Norway done the Allies greater service than any of the other neutrals since the war started?

In this war Norway has lost 708 ships to date, and this is more than your country is able to build in three-quarters of a year. In 1917 there have been sunk by the Germans, Norwegian ships with a displacement of about 490,000 tons, and 511 sailors have lost their lives. These ships and sailors were all in the service of the Allies. What are the Allies doing for our sailors who are risking their lives for their cause? They are only making their relations in Norway starve.

This is the way the most of the Norwegians now think and are arguing the matter, and there are many who say that your nation is doing a whole lot more wrongs than the Germans if you keep the prohibition up.

I have written this in order to let you know how the most of the Norwegians feel, and thought it might be of interest to you. I have written you this as you perhaps might be able to do Norway some good.

With the best wishes for the new year and hoping to hear from you in the near future, I beg to remain,

Yours faithfully,

W. BJIRKE.

Hausmannsgt. 29, Christiania.

Co-ordinated Forces of North Carolina Working to Help Win the War.

Raleigh, N. C., February 11—[Special.]—North Carolina is certainly not exceeded in war activities in the agricultural line by any State in the Union, and Governor Bickett is this week presiding at a three-days' War Savings Institute, which he called. Among the persons attending this large gathering, with more than 1000 delegates, are the 90 U. S. Farm Demonstration Agents, who after this institute ends take up the great question of what shall be done and how to do it this year, with special reference to war conditions.

Governor Bickett is going to share with the late Gov. Z. B. Vance the honor of being known as "The War Governor," and his wife shares with him the duty of pushing the war in North Carolina by speaking and writing and by practical demonstrations, including home living.

The State has taken up the important question of pushing garden production in the State this year, and John H. Jefferies, for several years in charge of the horticultural substation of the State Department of Agriculture here, will work in full co-operation with the Farm and Home Demonstration Agents throughout North Carolina. The purpose is to produce four times as many vegetables as were grown before and to save them. The snow and cold weather in early December nipped much of the garden produce and taught a valuable lesson.

The report of the value of farm crops produced in the State last year shows that it was \$145,000,000 more than in 1916 and \$275,000,000 more than the total in 1909, and yet there were thousands of farmers who did not raise their food supplies. All of the State forces are going to do missionary work to push thrift in production of meat and bread and to increase vastly the acreage in gardens. The crops of melons and strawberries will be far better handled than ever before. In county after county the poultry business, pig promotion and cattle-raising are being thought of as never before since 1861-5. The State University has established a division for women, in charge of one of the ablest women in North Carolina, Mrs. Thomas W.

Lingle, and her activities will lie largely along the line of social welfare and home development.

There never has been, not even during the War Between the States, such a co-ordination of all the vital forces of North Carolina as is now in progress, and the slogan is "North Carolina's Greatest Year, 1918!"

Early Potato Crop of Texas May Be Largely Increased.

Austin, Tex., February 8—[Special.]—The planting of Irish potatoes in South Texas is now in progress. Notwithstanding the protracted drouth that has prevailed over that part of the State, it is expected that there will be an increase in the acreage of this crop. In some localities the potatoes will be grown by means of irrigation. The principal producing section for early potatoes is around Eagle Lake and Wharton. The total area that will be devoted to Irish potatoes this spring in South Texas will be approximately 20,000 acres, according to the present outlook. If a general rain should come before the planting period is over this prospective acreage may be largely increased. Irish potatoes for the early spring market are also being extensively grown in the lower Rio Grande Valley, where there is an abundance of water for irrigation purposes.

Notwithstanding the freezes that have visited the extreme southern portion of the State in the last few weeks, regular shipments of cabbage and lettuce continue to be made to Northern markets from points in the lower Rio Grande Valley. Planting of tomatoes, peppers, beans and a variety of other truck is now in progress. The Bermuda onion crop came through the winter in fairly good shape, and prospects are favorable for a big increase in the production over any previous year.

On account of the lack of rain, it is probable that the planting of corn will be somewhat delayed. In ordinary years the corn-planting season opens in South Texas about February 10, but it is expected that this year it may be as late as March 1 before much of the grain is in the ground. The drouth has also caused a delay in planting spring oats.

Two New Banks for New Orleans.

New Orleans, La., February 11—[Special.]—Two new banks were announced for New Orleans during the week ending February 9. They are the Marine Bank & Trust Co., with a \$400,000 capitalization, and \$100,000 surplus, and the Liberty and Reserve Bank, to be capitalized at \$1,000,000.

These new institutions will give New Orleans 30 principal banks, and the reason for their formation is the unprecedented financial conditions in this region. Established banks are enlarging. Total clearings in New Orleans in 1917 amounted to \$1,963,923,811.65, the greatest in the history of the city, and represent a 42 per cent. increase for the year.

L. M. Pool, for 26 years connected with the banking business in New Orleans and for a long time vice-president and director of the Iibernia Bank & Trust Co., will be president of the Marine Bank & Trust Co., and J. H. Tharp, president of the Bank of Terrebonne, Houma, La., will head the other organization.

Over three-fourths of the stock of the Marine Bank was subscribed on the third day after announcement of its formation, and \$300,000 have been subscribed to the Liberty and Reserve Bank. Indications are that both stock issues will be oversubscribed. It is possible that some other name than "Liberty and Reserve" will be adopted by this institution when it is finally organized.

Government's Lumber Requirements During 1918.

Lumber requirements of the Government for national defense will be heavy during 1918, it is forecasted in a report of the Southern Pine Emergency Bureau.

"We are advised by our Washington office that there is a large amount of prospective business in sight, which will be brought forward as the plans of the Government progress," says the bureau. "Both the Secretary of War and the Secretary of the Navy will in the future refer their lumber requirements to the Lumber Director of the Council of National Defense for his recommendation as to purchase."

The report, which will be presented to the annual

convention of the Southern Pine Association in New Orleans, February 19 and 20, shows that the bureau had placed lumber orders for the Government totalling nearly 750,000,000 feet to December 31, 1917.

Eight thousand nine hundred and twenty-one cars of ship timbers, totalling 148,320,546 feet, had been shipped to December 29, 1917, on orders placed by the bureau, it is announced. Total ship schedules which the bureau is to furnish aggregate 239, or 306,000,900 feet, leaving a balance due on that date of 217,680,444 feet.

Forestry in North Carolina and Elsewhere in the South.

Resolutions were adopted at the eighth annual meeting of the North Carolina Forestry Association, held at Wilmington, requesting the Legislature to appropriate money to carry out the provisions of the State forest fire law and other forestry work; to pass a State-wide stock law and a State-wide law to protect birds and game. The Senate was urged to pass its bill, No. 3344, which provides for effective control of nursery stock importations. It was also resolved to print the address made to the association by Clement S. Ucker of Baltimore advocating the classification of land as the basis for practical forestry and stock-raising in the South. He proposed the division of land into three classes, thus: A, lands immediately available for general agriculture; B, lands adapted to grazing, and, with grazing, where practicable, reforestation; C, lands not fit for farming or grazing during this or the next generation to be devoted to reforestation. J. A. Mitchell of the United States Forest Service discussed "Forest Protection as an Economic Necessity" and "Forestry and the Fuel Situation." Other addresses were made by Major W. A. Graham, commissioner of agriculture; J. S. Holmes and Miss Julia A. Thorns. The annual election of officers resulted thus: President, Miss Julia A. Thorns of Ashboro, N. C.; vice-president, Prof. J. J. Blair of Wilmington; secretary-treasurer, J. S. Holmes.

Pecan Shells Said to Have Value as Stock Feed.

New Orleans, La., February 8—[Special.]—That pecan nut shells have a high feed value, and that New Orleans produces nearly 12 tons of them a day, are statements made by a department head of a local baker's supply company (M. Salmon of the Charles Denny Bakers' Supply Co.). He adds that his firm has made arrangements to ship the ground shells to a company in Genoa, Italy, for \$20 a ton, to be used in the manufacture of stock feed, when the war broke out and the deal fell through.

Analysis shows that pecan shells contain 3 per cent. protein and 2 1/4 per cent. fat.

During the recent coal famine pecan shells were used to raise steam and heat offices in a number of establishments here.

Another use to which the shells are being put is as floor sweepings, for which purpose their high percentage of oil makes them especially adaptable.

Florida in a Manual

"Florida Flashlights," written by J. H. Reese and bearing the imprint of The Hefty Press, Miami, presents, as says its title page, "a thousand and one facts concerning the history, development, resources and possibilities of the great Peninsula State." The author observes that this book of 115 pages was compiled with the idea of filling the demand for a condensed presentation in simple language of leading facts about Florida. While he does not claim perfection for his work, he says that it contains the meat of many official reports and represents more labor than its modest form indicates. Anyone who wants to know anything about Florida may be tolerably sure of finding much that will be useful to him in Mr. Reese's book.

\$500,000 Mill Chartered.

The Myrtle Mills, Gastonia, N. C., has been chartered by J. Lander Gray (president), J. Lee Robinson, J. H. Separk and associates. This company is capitalized at \$500,000, and it will establish a 10,000 to 15,000-spindle mill for spinning hosiery yarn.

The Iron, Steel and Metal Trades

Steel Production Continues to Decrease.

New York, February 11—[Special.]—Steel production during the past week continued to decrease rather than increase. The Monday holidays are now forgotten as a factor, as far as steel production is concerned. Production last week was between 40 and 50 per cent. The industry could stand three holidays and still produce its present tonnage if it operated full the remainder of the week. Of course, the milder weather brought forth some signs of encouragement, but it is far too early to expect it to be of a permanent nature. It is a question whether shortage of coke at blast furnaces or the inability to ship finished steel is the greater restrictive influence, opinion leaning somewhat to the latter.

The complexity of the situation is illustrated by the case of the tinplate mills. They are exempted from the Monday closing order. On the other hand, their warehouses are almost filled, some being crowded, yet shortage of sheet bars is restricting the tin mills to an operation of not over 60 per cent. of capacity.

There was some inquiry for sheet bars last week, but it was not seriously regarded, as the mills are far behind in meeting their present obligations. In the case of billets there was an inquiry for odd lots for early and later delivery. There are very considerable supplies of discard billets, with only a limited demand. The market offerings are far from heavy, however, since it is extremely difficult to ship. The shell steel being made is shipped fairly well, as it is usually given special treatment in shipping on account of its being particularly essential to the war. No preference is given to the discard steel arising at the same time, the result being that it has a strong tendency to accumulate. Steel consumers do not appear to be making any strong effort to adapt themselves to the use of discard steel. While the war lasts there is almost certain to be a good supply of this material, and apart from the fact that it will be obtainable much more easily than soft steel, there is a possibility that, on account of competition, it will be available at very attractive prices. Of late it has generally been held at \$2 to \$3 a ton below the set prices for soft steel billets of the respective sizes.

Numerous small contracts for shell of various kinds, for hand grenades, detonators, fuses and other shell accessories are being distributed by Government interests. The manufacturers who have received the awards are also steadily buying shop equipment in small lots. The Thompson & Starrett Co., New York city, which has the general contract for building a Government powder plant at Charleston, W. Va., is now purchasing coal-handling machinery, and is in the market for cranes and other machinery equipment for this plant. The Navy Department is taking bids on tools for machine shops at numerous aeroplane stations on the Atlantic seaboard, in Europe as well as in the United States. The Pennsylvania Railroad is also purchasing machine tools on behalf of the Government for shipment to engineering plants in France operated by the Army Department.

Locomotive building during the past fortnight has been of heavy types, chiefly for domestic roads. The locomotive shops are now on the same basis as the shipyards and munition plants, being under the direct control of the Government, their entire output being subjected to the orders of Director-General McAdoo. They will, therefore, be furnished all the steel required as promptly as the mills and the railroads can make deliveries. Under these circumstances, it is expected that the shops of the larger interests will be able to turn out at full capacity to meet the pressing requirements of the carriers. Extensions are being made to plants as rapidly as possible to meet the increased output.

According to locomotive builders, so great is the shortage of motive power on all the railroads throughout the country that it will take the entire output of the American and Baldwin Locomotive Works this year to place the carriers in a position to handle the enormous traffic that must be moved this year, whether the war continues or not. It is understood that the February schedule of the American Locomotive Co. calls for the construction of 222 engines, nearly all of which are the Mallet and Mikado types for standard-gauge roads. As the Richmond, Va., and Montreal plants of the company, which have been operating on projectiles since

1915, are now converted the output of locomotives will be increased by 25 to 30 locomotives a month.

So much production has been lost by the merchant furnaces during the past few months on account of coke shortage that if they were to make no more sales up to May 1 they would be as well sold up to that date as they expected to be. Last year's estimates were made that the merchant furnaces had about half of their prospective yield sold for the first half of this year. Now the situation is that the unsold tonnage on books is considerably more than half of the full output for the remainder of the half-year, while if production remains at the present rate the tonnage sold for the half-year cannot all be shipped by July 1.

Under the circumstances, the only delivery that can be considered as to new business is second-half tonnage.

Buyers of merchant iron are inquiring for only a small fraction of the total. The majority feel that delivery prospects are so uncertain that one may possibly be more certain of deliveries by making purchases later, when buyers can pick the furnace that chances to have had better operation than other furnaces.

Numerous unsatisfied inquiries from Eastern consumers of pig-iron now aggregate about 35,000 tons for shipment during the second quarter and second half of the year. Eastern furnaces are refusing to make any other commitments. A few additional special lots of foundry iron for quick shipment were sold last week by both Eastern Pennsylvania and Virginia furnaces, where railroad embargoes are not in force. As a general rule, however, furnaces are still compelled to pile most of their current output. Some additional sales of Southern iron were made last week for future shipment into the Central West. Very little business was transacted for Eastern shipment. Canadian manufacturers purchased about 1000 tons of Southern iron, and 1400 tons of Northern and Southern iron together in the Cleveland and Cincinnati markets. They are also anxious to purchase basic iron from Eastern furnaces.

Embargoes against coke shipments into New York and New England were lifted late last week by the Pennsylvania and New Haven railroads. The Baltimore & Ohio Railroad also took similar action, but specified that hopper cars must not be allowed to pass from the control of its own line. As nearly all the coke is now being shipped by hopper cars, the lifting of the embargo against such shipments is of small avail. One Eastern agency in the past 10 days sold 30,000 tons of foundry coke for shipment during the last half of the year and the first half of next, but has practically withdrawn from the market at present.

Metal Markets Show Little Improvement.

New York, February 11—[Special.]—For almost a month the metal markets have been practically at a standstill. Weather conditions, however, are commencing to show improvement and are becoming favorable for making shipments. Transportation conditions are also evidently trending toward the better. At present the refineries are well supplied with stocks of matte, but large supplies are held up in transit from the West. Except on war or Government orders, business with consumers during the past week shows a large falling off. Quiet conditions prevailed throughout the copper, lead and spelter markets during the week, and from all appearances this condition is liable to continue for several weeks longer.

Exports of copper in January, according to latest trade estimates, were about 35,000 tons, exclusive of shipments to Canada. Adding the estimated deliveries to the Dominion, total exports would be about 37,000 tons, equivalent to about 83,000,000 pounds. This is about the same as December, including exports to Canada.

During the past week buying of copper by small consumers for nearby shipment was confined within narrow limits. It is understood, however, that there was considerable increase in the placing of contracts for future shipment up to June 1, subject, of course, to the requirements of the United States and allied governments. It is estimated that outside of war requirements 160,000,000 pounds of copper will be available for domestic consumption before June 1, and probably more than

half of this amount has already been placed under contract.

Lead was not so tightly held in the West last week as it was a fortnight ago. Prompt metal is now being offered for sale at 6.85 cents to 6.80 cents St. Louis. On consuming business producers accepted orders at delivered prices, which are less than the equivalent of 6.80 cents St. Louis. In New York the price of the metal holds at 7 to 7.12½ cents for spot shipment, and later deliveries at 6.87½ cents. In common with everything else, there was much inconvenience through the delays in shipments and deliveries of lead on account of the bad traffic situation. The lead ore market at Joplin, Mo., was extremely strong during the week, prices ranging from \$80 to \$85 for 80 per cent. lead ores. The inability to get cars and the extreme difficulty of loading were factors greatly hindering the market, and has perhaps been influential in holding the price down to the level that prevailed. Production, however, was curtailed, which may have offset to a certain extent the other factors mentioned.

The spelter market, as in previous weeks, was very quiet, with hardly any business transacted on prime Western or the higher grades, aside from grade "A" that the Government is taking at the new price of 12 cents a pound. Consumers, whose plants were busy, appear to have all the spelter they require. Prices were well maintained throughout the week at 7.92½ cents for February and March shipments and at 8.02½ cents for March.

The Joplin, Mo., zinc ore market was less active than in the previous week. The inactivity was chiefly due to the second embargo by the local railroads, which affected all freight except coal and Government supplies. Prices, however, were maintained at \$50 to \$67.50 per ton of 60 per cent. zinc. Calamine sold at \$30 to \$35, the prevailing rate for the past six weeks. The final fixing of a price for grade "A" spelter at 12 cents a pound was received by the trade with mixed opinions. This grade applies to a very small portion of the production of the zinc mines, the bulk being prime Western. The amount of spelter made from Joplin ores entering into the "brass specials," "intermediate" and "sheet zinc" spelters is very large, and the fixing of a price upon grade "A" should directly affect the market.

Iron Production South Shows Marked Improvement.

Birmingham, Ala., February 11—[Special.]—Sales of pig-iron by Southern manufacturers are in the main in small lots, but the aggregate is about equal to the make. Very little of the iron being sold is for delivery before July 1. One or two companies announce not being ready as yet to open books for the last half of the year, but if the steady inquiry continues as it has since the first of the year, the probabilities are that by the end of this month, with but one exception all companies in this section will be accepting business. Consumers are still manifesting an anxiety to place their business, and the insertion of clauses in contracts as to probable revision on price April 1 by the Government, as to right of cancellation in case the revision is downward, and other things, apparently has no effect. The iron production in the South continues to improve. Good weather this month has had a stimulating effect on the output at furnaces, and there is no doubt that February production will exceed that of January, when Alabama was given credit for 218,502 tons. Expectations are that the Trussville furnace can get into operation before the month is over, and two furnaces of the Sheffield Coal & Iron Co. will be producing iron shortly.

There is a better production of ore, coal, coke and limestone, and transportation facilities in the district are steadier. Interruptions at the furnaces by reason of weather conditions are at a minimum, the result of all being that normal output has been reached again and some improvement is shown. Prospects are that before the middle of next month the pig-iron production in Alabama will be at a greater pace than ever before. Prominent iron men of this district and salesmen from other sections looking over the situation here are unanimous in the opinion that the iron market is strong, that the Government regulation and fixing of prices has not destroyed the market, and that there will be need for as much iron as can be manufactured this year, and even longer. As expressed by some of the selling agents who have been to Birmingham re-

Good Roads and Streets

Bonds Voted.

Childress, Tex.—Childress county voted \$35,000 bonds for road construction.

Dayton, Tenn.—City will issue bonds for paving principal business street.

Franklin, Tex.—Robertson county voted \$50,000 bonds for road improvements.

Lockhart, Tex.—Caldwell county voted \$50,000 bonds for building highways.

Bonds to Be Voted.

Arcadia, Fla.—De Sota county votes March 7 on \$330,000 bonds for road improvements.

Ballinger, Tex.—Runnels county will vote on \$150,000 bonds for road construction.

Contracts Awarded.

Charlotte, N. C.—Government awarded contract for building four-mile concrete highway and constructing 30 to 40 miles of sewers, cost to be \$500,000.

Columbia, S. C.—City awarded contract for 1½ miles of asphalt paving at Camp Jackson, and the cost will be \$40,000.

El Paso, Tex.—El Paso county awarded \$180,000 contract for bituminous surface highway improvements and reconstruction.

Galveston, Tex.—City awarded \$9581 contract for vitrified brick paving.

Galveston, Tex.—Galveston county voted \$20,274 contract for 5½-mile road improvement with asphalt surface.

Contracts to Be Awarded.

Ashdown, Ark.—Little River county will build 12-mile highway to cost \$74,000.

Augusta, Ga.—City invites bids for eight miles of paving estimated to cost \$300,000.

Augusta, Ga.—War Department will construct street paving to cost \$150,000 at Camp Hancock.

Bradentown, Fla.—Manatee county receives bids until March 14 for constructing 17,000 square yards of macadam surface.

Charlotte, N. C.—War Department appropriated \$80,000 for constructing roads within military reservation.

Charlotte, N. C.—Government will expend \$80,000 for building roads within military reservation.

Columbia, Tenn.—City invites bids until February 15 for constructing 26,000 square yards of asphaltic concrete paving.

Fort Pierce, Fla.—City has \$10,000 available for expenditure upon the paving of streets.

Gonzales, Tex.—Gonzales county voted \$60,000 bonds for constructing roads.

Lake City, Ark.—Craighead county is having plans prepared for constructing 25-mile highway.

Little Rock, Ark.—State has plans for constructing 220 miles of highway.

Spray, N. C.—E. E. Emerson will construct 1500 yards of cement pavement.

Weston, W. Va.—Lewis county will expend \$100,000 for road improvements.

MINING

Big Carr's Fork Coal Development.

An investment of \$1,000,000 for coal-mining activities on Carr's Fork, Kentucky, is proposed by the Carr's Fork Coal Co. This company has been organized with an initial capital of \$300,000 and it has leased 3000 acres of coal land from the Virginia Coal & Iron Co. for immediate developments requiring the establishment of two and probably more mining and industrial cities along Carr's Fork, including complete electrically-equipped plants for mining and handling coal.

The interested capitalists include D. O. Foley of Lexington, Ky.; T. F. McConnell, H. E. Bullock and

Charles Bischoff of Hazard, Ky.; F. A. Crossman of Providence, R. I., and M. Y. Cooper and F. H. McKinney of Cincinnati.

For 2000 Tons Daily Capacity.

Four drift mines will be equipped by the Dawson Coal Mining Co., Dawson Springs, Ky., which will develop 4610 acres of Hopkins county coal land and expects that its daily output for the first year will be 500 tons from each of the four openings, making a total of 2000 tons. This company was recently organized as a subsidiary of the Dawson Hotel Corporation of America, and transportation facilities for its developments will be afforded by the railroad now under construction from Dawson Springs to Providence, Ky., by the Illinois Central Railway, which will pass through its property. Its capitalization is 5000 shares of common stock without par value, and the officers are: Theo. R. Troendle, president and treasurer; I. N. Day, vice-president; Will P. Scott, secretary.

New Texas Sulphur Development.

Culberson county sulphur will be developed by the Toyah Texas Sulphur Co., which has been chartered with \$350,000 capital by James C. Buchanan, Oscar T. Wright and Martin P. Ward, all of Washington, D. C. Mr. Buchanan is the new corporation's president, and he wires the MANUFACTURERS RECORD that 600 acres will be developed by steam shovel near Toyah, Tex., stating that the sulphur bed reaches the surface 50 per cent. pure. George Briggs is vice-president and Edward Hart is construction engineer of this company, both of Pecos, Tex. They want a steam shovel and a retort for the proposed plant.

Alpha West Virginia Coal Mines.

For supplying fuel to its manufacturing plants, the Alpha Portland Cement Co. is arranging to install plants for the development of its coal land near Reynoldsville, W. Va. G. S. Brown, president of the Alpha corporation, Easton, Pa., advises the MANUFACTURERS RECORD that an electrical equipment will be installed, using the old slope, and that plans are being prepared for a second opening which will probably be a shaft mine. In November the company was mentioned as planning improvements to mines on a 500-acre Harrison county (West Virginia) property which it had purchased.

To Develop 5000 Acres of Coal.

Pocahontas coal measures in a 5000-acre tract of Mercer county (West Virginia) coal land will be developed by the Pocahontas Coal Land Co., Beckley, W. Va. This corporation has been chartered with \$125,000 capital by J. B. Earwood, George W. Warren and Ashton File of Beckley, W. Va.; William Prince of Princeton, W. Va., and W. O. Abney of Charleston, W. Va.

Mining Georgia Bauxite.

Active mining is in progress by the Warner Mining Co. of Chattanooga, Tenn., in the development of its bauxite property at Abbeville, Ga. It is proposed to install a cableway or other conveying equipment for handling the ore from the top of a 350-foot ridge across to a railway siding three-quarters of a mile distant. From 100 to 200 tons per day of 10 hours is to be the capacity.

Smokeless Coal Development.

Coal land in McDowell county, West Virginia, will be developed by the Atlantic Smokeless Coal Co., incorporated at Davy with \$50,000 capital. H. L. Hubbard, I. M. Hubbard and F. E. Morgan, each of Davy, and W. H. Soper of Norfolk are the incorporators.

An equipment of machinery, to include 84 broad looms, 19 sets cards and 5 pickers, will be installed for the Oella (Md.) Mills, lately noted as to rebuild burned plant.

cently, it is not a matter of salesmanship any more in selling iron, but distribution of the iron being produced. Home consumption will not improve until the cast-iron pipe trade is stronger and there is a healthier melt with those industries. Specifications for cast-iron pipe are to be heard of, but there are not many orders in hand, and so far there has been but little new business received lately.

Machine shops and foundries are working to full capacities right along in this district, in the main on Governmental contracts. Deliveries are prompt on foundry and machine-shop products. Steel mill operations are also active.

The scrap iron and steel market shows a little weakness, though heavy melting steel, one of the principal commodities of this section, has taken on a little advance. Embargoes on railroads and inability to get railroad cars are still complained of. Some of the dealers are also of opinion that the approach of warm weather will affect the old-material market considerably. There is plenty of stock on hand with the scrap iron and steel dealers, and almost every demand can be met.

Quotations for pig-iron and scrap iron and steel in the South are as follows:

PIG-IRON.

No. 2 foundry.....\$33.00 to \$33.50 f. o. b. furnace

(Differentials according to silicon as before Government fixed prices; charcoal iron, \$43; all contracts for delivery after April 1, 1918, subject to revision by Government agency, and some companies also claim right to cancel if Government revision is downward.)

OLD MATERIAL.

Old steel axles.....	\$32.00 to \$33.00
Old steel rails.....	28.00 to 30.00
Heavy melting steel.....	24.00 to 26.00
No. 2 railroad wrought.....	24.00 to 26.00
No. 1 cast.....	24.00 to 26.00
Stove plate.....	19.00 to 21.00
Old car wheels.....	25.00 to 30.00
Tramcar wheels.....	21.00 to 25.00
Machine-shop turnings.....	17.50 to 19.00
Cast-iron borings.....	13.00 to 15.00

TEXTILES

Belbro Mills.

Organization has been effected by the Belbro Mills of Charlotte, N. C., recently incorporated with \$125,000 capital. This company has a building and will install 4000 spindles, with electric power drive, for spinning hosiery yarn. Officers as follows: W. H. Belk, president; Geo. H. Brockenbrough, Jr., vice-president and manager; Geo. H. Brockenbrough, Sr., treasurer.

For Absorbent Cotton Mill.

Contract has been awarded at \$15,367.50 to Woodruff & Chambers for erecting the Texas Textile Co.'s mill building at Houston. This will be a one-story 200x60-foot structure of reinforced concrete and hollow tile. It will be equipped for a daily capacity of 2000 pounds of absorbent cotton. The company was incorporated with \$250,000 capital, and recently invited proposals on building its mill.

Textile Notes.

Ten cards, two drawings and one picker will be added by the Chadwick-Hoskins Co. (Charlotte, N. C.) to its No. 5 mill at Pineville, N. C. An extension will be erected to provide space for this new machinery.

Six new cards and 116 new duck looms will be added by the Pelham (Ga.) Cotton Mills. This machinery has been ordered, the looms from the Draper Company of Hopedale, Mass., and the cards from the Saco-Lowell Machine Shop, Lowell, Mass.

The Hillsboro (Texas) Cotton Manufacturing Co. will build three additions, and has awarded the contract to D. M. Stowe. These additions comprise a one-story enlargement of the weaverroom, a two-story addition to the main structure and an opening and supply building.

Twenty knitting machines for manufacturing half-hose will be installed by the Elmore Knitting Mills of Lawndale, N. C. This company has organized with \$12,000 capital and the following officers: Decatur Elmore, president; W. R. Newton, secretary-treasurer; Elmer McKinney, superintendent.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SHORT ROUTE TO FLORIDA WEST COAST

Suggestion That South Georgia Railroad Be Used as Trunk Line Connection.

E. M. Backus of Tarpon Springs, Fla., recently presented before a meeting of the Board of Trade at St. Petersburg, Fla., a plan for the routing of railroad traffic between the western coast of Florida and the West and Northwest by direct lines, instead of indirectly by way of Jacksonville, as practically all business is now handled. His suggestion was that this could be done by utilizing as part of the through route the South Georgia Railroad, which runs from Perry, Fla., to Adel, Ga., 77 miles, connecting at Perry with the Atlantic Coast Line; at Greenville, Fla., with the Seaboard Air Line; at Quitman, Ga., with the Atlantic Coast Line; at Morven, Ga., with the Valdosta, Moultrie & Western Railway, and at Adel, Ga., with the Georgia Southern & Florida Railway. The use of this road in co-operation with the trunk lines would, it is stated, make a direct route to and from the west coast for business between Tampa, St. Petersburg, Atlanta, Montgomery and other points, and would save 300 miles of railroading.

It was decided to bring the subject to the attention of W. G. McAdoo, Director-General of Railroads for the Government, and steps have been taken to prepare data to adequately substantiate the advocacy of this proposed railroad connection, which has long been desired for the purpose of avoiding the long detour eastward which is now compelled upon traffic. The utilization of the South Georgia Railroad might make it unnecessary to immediately build the proposed extension of the Atlantic Coast Line from Perry to Monticello, Fla., the object of which was to afford the relief which the cities of the west coast want.

The plan of the promoters of this idea is to secure the co-operation of the commercial bodies of all prominent points on the west coast, and L. A. Whitney, secretary of the St. Petersburg Board of Trade, is now at work upon it.

American Locomotive Co.'s Report.

The semi-annual report of the American Locomotive Co. for the last half of the year 1917 says that the contract for 150 locomotives awarded to it by the United States Government on July 24 last was completed during September and October. These are the engines to be used in France for the transportation of our troops and their supplies. With the aid of our Government the company obtained an adjustment of the contract for 250 locomotives made with Russia, which, it is stated, "in view of all conditions is satisfactory."

Locomotives made by the company during this six months' period were practically all built at the Schenectady, the Brooks, the Pittsburgh and the Cooke plants, which collectively represent about 70 per cent. of the company's locomotive capacity, but the Richmond and the Montreal plants, which had been making munitions since 1915, completed their contracts in July and August, and during October the work of restoring them for locomotive building was completed. The cost of restoration was charged to a reserve created out of previous years' profits.

The income account shows gross earnings for the six months ended December 31, 1917, \$25,959,126; decrease as compared with the same period of 1916, \$1,904,468; manufacturing, maintenance and administrative expenses and depreciation, \$29,851,294; decrease, \$2,475,449; balance, \$6,107,832; increase, \$570,981; profit after deducting interest on bonds of constituent companies, notes, etc., \$6,010,009; increase, \$556,075; profit available for dividend after deducting reserve for U. S. income and excess profits taxes and Canadian business profits tax, 3,969,251; increase, \$338,417; surplus profit after deducting dividends for six months on both preferred and common stock, \$2,469,251; increase, \$338,417.

The amount of money in inventories of materials

and work in process on December 31, 1917, was \$27,830,295. In the largest year of business prior to the war the amount of such inventories was about \$11,000,000. This very large increase of about \$16,800,000 is due to the higher cost of materials and labor and also the rearrangement of locomotive production schedules to meet the war requirements of the Government, which resulted in postponing the construction of locomotives, the material for which had been delivered to the company's plants.

Selma Street Railway to Be Sold.

The property of the Selma Street & Suburban Railway Co., Selma, Ala., will, it is stated, be offered for sale at public auction on March 14 under a mortgage to satisfy the holders thereof, who are Pennsylvania capitalists. The indebtedness is \$125,000, represented by two mortgages, the trustee of one being D. L. Gerould of Warren, Pa., and the Warren Savings Bank of the same place being trustee of the other. Robert Wetherill, H. Bayard Hodge, W. H. Roth and others of Philadelphia, Chester, New York, etc., are interested.

Tennessee Railway to Be Reorganized.

The Tennessee Railway, 39 miles long from Oneida to Rosedale, Tenn., with several short branches, was recently sold under a court order, the purchaser being J. N. Baker, trustee, for \$425,000. It is stated that the bondholders and the holders of receivers' certificates have organized to take over the line and that they have selected H. B. Spencer of Washington, D. C.; A. J. Hemphill of New York City, and Mr. Baker, who is of Harriman, Tenn., to be reorganization managers. The road traverses coal and timber lands. Bird M. Robinson is receiver. Mr. Spencer is a vice-president of the Southern Railway Co., and Mr. Hemphill is chairman of the Guaranty Trust Co. of New York.

Contractor Sues a Railroad.

F. McAllister, receiver of the Eastern Construction Co., has, according to a report from Pensacola, Fla., taken action in court to recover from the Gulf, Florida & Alabama Railroad, of which John T. Steele is receiver, the sum of \$490,000 claimed to be due by the railroad on a contract under which the Eastern Construction Co. built the line and its terminals. It is also sought to recover two sums of \$81,000 and \$110,000, respectively, these, it is alleged, being money advanced by the construction company to the railroad company to buy equipment and materials, to pay for labor and to enable the line to operate. It is further alleged that the aggregate amount the construction company is entitled to receive from the railroad is about \$4,900,000, all of which was paid excepting 10 per cent. withheld from time to time by the railroad under the terms of the contract, which is now sought as well as the other sums mentioned.

Decatur Axtell Retires.

Decatur Axtell, vice-president of the Chesapeake & Ohio Railway Co., has, according to a report from Richmond, resigned and retired from its service, having recently celebrated the seventieth anniversary of his birth. Mr. Axtell was in charge of the accounting and the treasury department of the company. He was with the Chesapeake & Ohio properties since July, 1880, when he became general manager of the Richmond & Alleghany Railroad, that is now the James River division of the Chesapeake & Ohio system. He has been 54 years in railroad work, having been connected with the St. Louis, Iron Mountain & Southern Railroad and other Western lines before becoming connected with the Chesapeake & Ohio, of which he was vice-president for 27 years.

New Equipment.

The Atlantic Coast Line is reported to have ordered 1000 steel underframe ventilated boxcars, of 40 tons capacity, from the Standard Steel Car Co.

Branch to Government Powder Plant.

A report from Nashville, Tenn., says that day and night shifts, with a total of 500 men, are working on the construction of a branch railroad from a connection with the Nashville, Chattanooga & St. Louis Railway and the Tennessee Central Railroad to the site of the Government powder plant. It begins near Hermitage Station and goes to Hadley's Bend, on the Tennessee River, and then to the ferry near Edenwold, about five miles. A trestle about 700 feet long and 50 feet high at its highest point and over Brown's Creek is a feature of the work. Yards half a mile long and 200 feet wide are being built between Hermitage and Hickory stations. D. West is superintendent of construction.

To Build Short Line in North Carolina.

The Narron Central Railroad Co. of Kenly, N. C., with authorized capital of \$250,000, of which \$25,000 is paid in, has been chartered to build a line from Kenly to Zebulon, N. C., about 25 miles. Kenly is on the main route of the Atlantic Coast Line Railroad, and Zebulon, which is northwest of that place, is on the Norfolk Southern Railroad, 25 miles east of Raleigh. If a direct line is built between Kenly and Zebulon it will closely follow the valley of Little River. The directors of the new company are Wiley Narron, president; Newsom Narron, general manager; Jarvis Narron, assistant general manager; J. H. Kirby, secretary and treasurer; Langley Narron and Pettis Narron, all of Kenly.

Branch Line Bought by Lessee.

A report from Fitzgerald, Ga., says that J. A. J. Henderson of Ocilla, Ga., has purchased for \$17,000 the Ocilla and Fitzgerald branch of the Fitzgerald, Ocilla & Broxton Railroad, which had been offered at auction several times by the receiver. The Ocilla Southern Railroad, of which Mr. Henderson is president, has, it is stated, leased the road for several years.

No Bids for Greenville & Western.

No bids were received for the Greenville & Western Railway when it was offered for sale at auction recently at Greenville, S. C., by the receivers. The upset price was \$100,000. Asa G. Candler of Atlanta and associates constitute the principal interest in the property. Carl H. Lewis and V. E. McBee are the receivers.

Home Garden Movement to Be Strongly Pushed in Texas County.

Corpus Christi, Tex., February 8.—[Special.]—Edwin F. Flato, food administrator of Nueces county, has appointed John W. Statton, a local newspaper man, chairman for home gardens. Six hundred gardens were put in Corpus Christi during 1917, and it is hoped, now that the food situation is so acute, to greatly increase the number this year. Some of the back-yard patches netted more than \$300 during 1917.

There is no reason why 1000 gardens cannot be planted the present season, and Mr. Statton hopes to enlist the interest of that number of citizens; in fact, he desires to have Corpus Christi the banner garden town of the State of Texas. Supposing that each garden saves no more than \$100 during 12 months, the sum saved will aggregate \$100,000. It is not the money value, however, great though it may be, which is paramount; rather it is the amount of other necessary foods that will be released.

The home garden campaign for 1918 will extend throughout the county, and there is no good reason, with a reasonable amount of rainfall, why \$150,000 cannot be saved to the nation and to its Allies.

Will Manufacture Egg Substitute.

An egg substitute for cooking purposes will be manufactured by the Purity Products Co. of Macon, Ga., which has been chartered with a capital of \$600,000. John C. Walker, T. J. Bryson and P. H. Gambrell are the incorporators.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

AIRPLANE PLANTS, STATIONS, ETC.

Va., Troutdale.—Airplane Parts.—Troutdale Furniture Mfg. Co., F. L. Greer, Gen. Mgr., contemplates manufacture of wooden parts for aeroplanes; has equipment of machinery. (See Machinery Wanted—Airplane Contractors.)

BRIDGES, CULVERTS, VIADUCTS

Mo., Huber's Ferry.—Cole County Commrs., Jefferson City, Mo., and Osage County Commissioners, Linn, Mo., contemplate erection of steel bridge across Osage River, 10 mi. east of Jefferson City; probable cost \$90,000; structure to have 200-ft. draw span, two 200-ft. fixed spans, 125-ft. deck span, and 250-ft. cross-tied pile trestle approach; concrete piers.

S. C., Chester.—Chester County will vote on \$450,000 bonds to construct bridges and roads. Address County Commrs.

Va., Bristol.—Norfolk & Western Railway, J. E. Crawford, Chief Engr., Roanoke, Va., plans expending \$500,000 for terminal improvements, to include concrete steel bridge at Mary St. crossing, streets, underpasses, overhead crossings, trackage, etc.

W. Va., Parkersburg.—Marietta & Parkersburg Bridge Co. Incptd. by S. E. Miller of Fairmont, W. Va., and others; plans to construct bridge across Little Kanawha River at Parkersburg. (See W. Va., Williamsonstown.)

W. Va., Williamsonstown.—Marietta & Parkersburg Bridge Co., capital \$250,000, Incptd. by S. E. Miller, F. B. Pryor, A. K. Colburn and others, all of Fairmont, W. Va.; plans to construct bridge across Ohio River from Williamsonstown to Marietta, Ohio; also proposes to construct bridge across Little Kanawha River at Parkersburg, W. Va.

CANNING AND PACKING PLANTS

Ark., Olvey.—H. G. Walton and E. McMahon of Seymour, Mo., will build cannery, principally for tomatoes; cost \$10,000.

Fla., New Port-Richey.—Harrison A. Smith of Jacksonville will erect cannery and fish-house; smoke and cure fish and pork and ship iced fish.

Ky., Henderson.—H. J. Heinz Co. (main office, Pittsburgh, Pa.) acquired factory building and will remodel for cannery.

Md., Baltimore.—Corkran, Hill & Co., 221-27 S. Howard St., receives bids until Feb. 18 on erection of plant at 6th St. Union Stockyards, for beef and pork packing and manufacture of shortening; main building 214x50 ft., of reinforced concrete and brick, with concrete and brick floors; following contractors will submit estimates: West Construction Co., American Bldg.; B. F. Bennett Building Co., 123 S. Howard St.; Chas. L. Stockhausen Co., Marine National Bank Bldg.; Singer-Pentz Co., Equitable Bldg.; Cowan Building Co., 106 W. Madison St.; Consolidated Engineering Co., Calvert Bldg.; H. D. Watts Co., 904-06 Garrett Bldg.; Price Concrete Construction Co., Maryland Trust Bldg. (Lately noted.)

Mo., St. Louis.—Swift & Co., Union Stockyards, Chicago, will erect several additional buildings and extend trackage facilities.

Tenn., Alpha.—Lock Moore contemplates building tomato cannery.

Tex., Rock Island.—Figland Preserving Co. organized; E. M. Frazee, Pres.-Mgr.; S. E. McCully, V.-P.; H. F. Priesmeyer, Secy.; J. W. Hudson, Treas.; reorganization; manufactures preserves and jellies. (Lately noted Incptd., capital \$12,000.)

W. Va., Hinton.—Swift & Co., Chicago, will re-erect building noted burned while under construction; branch packing-house at 6th Ave. and Commercial St.; 3-story, 75x40-ft. reinforced concrete building, with reinforced concrete floor; cost without equipment, \$35,000; install electric elevator, 2 tons capacity, costing \$300; cost of heating plant \$1000; W. C. B. Shaaber, Mgr.; L. T. Cox, Contr.

W. Va., Romney.—Hampshire County Commrs. let contract Enterprise Construction Co. of Elkins, W. Va., to construct bridge over South Branch of Potomac River; 200-ft. bridge; 3 spans. (Bids lately noted.)

CLAYWORKING PLANTS

W. Va., Newell.—Tile, etc.—Kenilworth Tile Co. will rebuild plant reported burned, loss \$35,000; manufacture tile and electric porcelain ware.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Garmany Coal Mining Co., capital \$15,000, Incptd.; T. L. Finney,

Pres.; G. J. Grany, V.-P.; G. H. Garmany, Secy.-Treas.

Kentucky.—D. Y. Little, Manchester, Ky., leased coal holdings in Carr's Fork section; organized company to develop.

Kentucky.—Kentucky River Coal Corp., Lexington, Ky., is reported to lease lands along Carr's Fork for additional developments.

Ky., Ages.—High Point Coal Co., lately noted (under Ky., Harlan) as increasing capital from \$12,000 to \$35,000, develops 50 acres; daily output 200 tons; solid mining and mule haulage; J. E. Adair, Pres.-Mgr.

Ky., Dawson Springs.—Dawson Coal Mining Co. elected Theo. R. Troendle, Pres.-Treas.; I. N. Day, V.-P.; Will P. Scott, Secy.; develop 450 acres; 4 drift mines; daily capacity 500 tons each mine, or 2000 tons; date for opening machinery bids not set. (Lately noted organized subsidiary of Dawson Hotel Corporation of America.)

Ky., Hazard.—Carr's Fork Coal Co. organized (capital \$300,000) by T. F. McConnell, H. E. Bullock and Chas. Bischoff of Hazard, Ky.; D. O. Foley of Lexington, Ky., F. A. Crossman of Providence, R. I., M. Y. Cooper and P. H. McKinney of Cincinnati; develop 3000 acres leased from Virginia Coal & Iron Co.; install electrically-equipped plant; construct 2 or more mining and industrial towns on Carr's Fork; expend \$1,000,000.

Ky., Indian Bottom.—Turkey Foot Coal Co. increased capital to \$75,000; will develop coal lands along Caudill's branch.

Ky., Pike County.—Triangle Coal Co., capital \$50,000, Incptd. by J. E. Biggs and H. S. Brown of Bramwell, W. Va., J. L. Kersey of Williamson, W. Va., and others.

Ky., Whitesburg.—Eureka Elkhorn Coal Co. organized; Jas. P. Lewis, Pres., Frankfort, Ky.; M. D. Lewis, V.-P.; W. W. Sergeant, Secy.; S. E. Baker, Treas.; acquired 500 acres; daily capacity 5 cars; build ¼-mi. spur track; may lease the property; if not, will install machinery and develop. In January, Jas. P. Lewis and M. D. Lewis (latter of Whitesburg) noted as purchasing Eureka Coal Co.'s property. (See Machinery Wanted—Rails; Mining Machinery.)

Md., Gorman.—Hamill Coal & Coke Co., Kitzmiller, Md., purchased mining rights on 321 acres coal land near Gorman; plans development.

Md., Wilson.—Dodson Bituminous Coal Corp., 26 S. New St., Bethlehem, Pa., will develop 3350 acres; daily output 3000 tons; date of opening mining-machinery bids not set.

W. Va., Beckley.—Rogers Coal Co., capital \$25,000, Incptd. by G. H. Bolon, C. M. Rogers, P. L. Blankenship and others.

W. Va., Davy.—Atlantic Smokeless Coal Co., capital \$50,000, Incptd. by H. L. Hubbard, I. M. Hubbard, F. L. Morgan and others.

W. Va., Julian.—Lory Coal & Coke Co. organized; S. M. Stone, Pres.; B. S. Preston, V.-P.; J. Krummell, Secy.; G. J. Cottrell, Treas.-Mgr.; develop 825 acres; daily output 500 to 500 tons. (In September, under Va., Lory, noted Incptd., capital \$25,000.)

W. Va., Lost Creek.—Bowery Coal Co., Clarksburg, W. Va., organized; J. W. Barnard, Pres.-Mgr., Clarksburg; E. J. Barnard, V.-P.; H. W. Slattery, Secy.; Welton S. Alden, Treas., No. 1 Broadway, New York; develop 90 acres; daily output 400 tons; Horner Bros., Constr. Engr., Clarksburg. (Lately noted Incptd., capital \$25,000.)

W. Va., Morgantown.—Iona Coal Co., capital \$25,000, Incptd. by Howard Cross, Jas. E. Hunter, Wm. G. Margua and others.

W. Va., Meadowbrook.—Madigan-Johnson, 154 E. Pike St., Clarksburg, W. Va., organized; T. J. Johnson, Pres.; F. E. Madigan, V.-P.; J. W. Madigan, Secy., Treas. and Mgr.; develop 17 acres; daily output 500 tons; stripping proposition. Lately noted Incptd., capital \$25,000. (See Machinery Wanted—Rails and Switches.)

W. Va., Mercer County.—Pocahontas Coal Land Co., capital \$25,000, Incptd. by W. O. Abney of Charleston, Geo. W. Warren and Ashton File of Beckley, W. Va., and others; purchased 5000 acres of coal land in Mercer County and will develop.

W. Va., Morgantown.—Berry Coal Co., capital \$25,000, Incptd. by Frank C. Shriver, Wm. E. Glascock, Everhard Bierer and others.

W. Va., Morgantown.—Granville Coal Co., capital \$10,000, Incptd. by Jos. Bierer, E. H. Wingrove, D. M. Wingrove and others.

W. Va., Philippi.—Hutchinson-Arnold Coke Co., capital \$50,000, Incptd. by J. F. Cole, R. J. Merrifield, Lou Thomas and others, all of Fairmont, W. Va.; develop coal mines in Barbour County, Philippi District.

W. Va., Princeton.—Glady Creek Coal & Coke Co., capital \$50,000, Incptd. by J. H. Davidson, T. B. Beckwith, H. C. Hadden and others.

W. Va., Reynoldsville.—Alpha Portland Cement Co., G. S. Brown, Pres., Easton, Pa., advises Manufacturers Record: Arranging to install electrical equipment in mine, using old slope; preparing plans for second opening, probably shaft. (In Nov., 1917, noted as planning improvements to mines on 500 acres in Harrison County, purchased for fuel developments to operate own plants.)

CONCRETE AND CEMENT PLANTS

Fla., Orlando.—Cement Caskets.—E. W. Hartman will establish plant to manufacture monolithic cement burial caskets.

COTTON COMPRESSES AND GINS

Ala., Albertville.—H. J. Morgan will rebuild cotton gin reported burned at loss of \$10,000.

Okla., Henryetta.—Henryetta Gin Co., capital \$15,000, Incptd. by Roy R. Reynolds, H. J. Buttery and W. B. Hudson.

S. C., Laurens.—Laurens Gin & Fuel Co. organized; J. W. Todd, Jr., Pres.; R. C. Gray, V.-P.; W. E. Meng, Secy.-Mgr.; purchased cotton gin and wood-sawing and splitting machinery with electric drive; cost \$700; daily capacity cotton gin, 75 bales. (Lately noted Incptd. and as acquiring ginners.)

COTTONSEED-OIL MILLS

Ga., Eastman.—Eastman Oil Mill will rebuild burned plant; install 4-press mill to crush cottonseed and peanuts.

DRAINAGE SYSTEMS

Ala., Lowndesboro.—Big Swamp Drainage District will have preliminary survey made by H. L. Grable for drainage of about 20,000 acres in valley of Letohatchee Creek, Lowndes County; contemplates being ready for bids in April; estimated cost of work \$150,000. (In October, 1917, noted as organized by J. Scott Rice, Engr., Haynesville, Ala., and others.)

Ark., Craighead County.—Drainage Dist. No. 16 is having drainage plans prepared by Klyce & Kackley, 505 Fourth and First National Bank Bldg., Nashville, Tenn., and 215 Townley Bldg., Miami, Fla.; date for construction bids not set.

Fla., Kiceo, via Florida.—Kissimmee Island Cattle Co., W. J. Kelly, Pres., Jacksonville, Fla., and W. F. Ward, Mgr., Kiceo, will open bids about July 1 to construct several canals from 1 to 6 mi. long, 3 to 5 ft. deep and 8 to 40 ft. wide; drain 4000 acres (one body) for agriculture and several thousand acres along canals for carrying off excess water in heavy rainfalls; lands in Okeechobee, De Soto and Polk counties. Lately noted. (See Machinery Wanted—Drainage; Agricultural Machinery; Tractors.)

Ga., Macon.—War Department drainage contract, lately noted let to H. B. Hoppen-deitzel Co., 314 Georgia Casualty Bldg., Macon, calls for drainage construction of 3 to 14-ft. ditches from Ocmulgee River almost to Camp Wheeler; steam shovel work; Engr., Lieutenant Haskin, United States Sanitary Engr.

La., Gilliam.—Geo. E. Dutton, 2900 Dorien St., Shreveport, La., will widen Kelly Bayou; excavation 150,000 cu. yds.; bids until Feb. 15. (See Machinery Wanted—Dredging.)

Miss., Biloxi.—City will issue \$3500 bonds for drainage construction under supervision of Government officials. Address The Mayor.

Miss., Grenada.—Potacocowa Creek Drainage District of Carroll and Grenada Counties will construct 2 mi. channel 90 ft. wide on base, average depth 7 ft., and 3 mi. levee with crown of 6 ft., fill 10 ft., and side slopes 2 to 1; channel excavation 230,000 cu. yds.,

and 160,000 cu. yds. in levees; drain 20,000 acres; cost \$70,000; bonds to be sold; let contracts Feb. 28; dragline excavator work; Engr., Morgan Engineering Co., 693 Goodwyn Institute Bldg., Memphis, Tenn. Noted in Sept., 1917, with Morgan Engineering Co. engaged to make surveys. (See Machinery Wanted—Drainage.)

Mo., Mound City.—Highland Drainage District, P. W. Zachary, Secy. Supvrs., will construct drainage canals and other improvements; 300,000 cu. yds. excavation; bids until Feb. 18; Wm. M. Morris, Ch. Engr., Oregon, Mo. (See Machinery Wanted—Drainage System.)

ELECTRIC PLANTS

Ark., Helena.—Helena Gas & Electric Co. increased capital from \$300,000 to \$500,000.

Ark., Little Rock.—Little Rock Railway & Electric Co. will install turbine costing \$200,000 to provide improved lighting and street-car service; has let contract.

Fla., Bonifay.—City purchased electric-light and water plant; is rebuilding; expend \$21,000; J. B. McCrary Co., Atlanta, Ga., lately noted as Contr. and Engr. (See Water-works.)

Ga., Jeffersonville.—City, J. G. Rockmore, Mayor, will vote March 28 on \$6000 bonds for electric lights.

Ga., Ty Ty.—City votes March 8 on \$7000 bonds to build electric-light plant and construct electric-light system. R. R. Pickett, Mayor.

Mo., Kahoka.—City is considering extension of electric transmission system to Luray, Williamstown, Clark City and Medill; L. R. Sherrill, Supt.

Miss., Clinton.—Town will install oil-burning equipment in electric-light plant; M. Latimer, Mayor.

Mo., Oregon.—City contemplates constructing transmission system from St. Joseph to secure electricity for municipal electric-light system. Address The Mayor.

N. C., Dunn.—General Utility Co., capital \$100,000, inceptd. by B. O. Townsend, Marvin L. Wade and G. M. Tighman.

Okla., Kingston.—Kingston Ice & Light Co. will rebuild power plant reported wrecked by explosion at loss of \$25,000; Geo. Blothen, Plant Mgr.

Okla., Okemah.—City contemplates voting on bonds to improve electric-light plant, water-works and sewer system. Address The Mayor.

Tenn., Bowie.—Texas Light & Power Co. will rebuild electric-light and power plant reported burned at loss of \$8000.

Tenn., Canyon.—Canyon Power Co. will rebuild burned plant.

Tenn., San Benito.—Commonwealth Water & Electric Co., capital \$30,000, inceptd. by John T. Lomax, W. D. Carpenter and Sam Spears.

FERTILIZER FACTORIES

Tenn., Houston.—City will erect addition at north side disposal plant to manufacture fertilizer from sludge; cost \$70,000. E. E. Sands, City Engr.

Va., Suffolk.—Dixie Guano Co. increased capital from \$50,000 to \$100,000.

FLOUR, FEED AND MEAL MILLS

Ark., Little Rock.—J. F. Weinman Milling Co. increased capital from \$30,000 to \$150,000.

Fla., Miami.—H. T. Church, Box 475, contemplates installation flour-mill machinery, daily capacity 200 to 400 lbs. (See Machinery Wanted—Flour-mill Machinery.)

Ky., Mayking.—W. W. Gibson & Son will install gristmill for operation in connection with sawmills.

Md., Monkton.—Monkton Roller Mills, Mt. Washington, Md., capital \$200,000, inceptd. by Otis E. McCoy, Prest.; J. E. McCoy, 1st V.-P.; erect main building of ordinary construction; 72x32 ft.; 5 stories; plans by Otis E. McCoy, Mt. Washington; install complete wheat flour roller-mill equipment, cost \$25,000; capacity 250-300 bbls. per 24 hours; build hydro-electric plant for operating flour mill. See Hydro-electric Plants. (See Machinery Wanted—Flour-mill Machinery; Electrical Equipment; Building Materials.)

Mo., St. Louis.—Midwest Flour & Feed Co., capital \$12,500, inceptd. by Eugene C. Dreyer, Frank K. Houston and Franklin Meter.

N. C., Gastonia.—A. B. Rhyne will rebuild roller-mill reported burned at loss of \$10,000.

Okla., Blackwell.—Blackwell Milling & Elevator Co. will rebuild burned mill.

Okla., Kiowa.—Pittsburg County Feed Co., capital \$5000, inceptd. by Ernest Akin of

Kiowa, Vince Davis and Ben J. Thomas of Wilburton, Okla.

Okla., Kiowa.—Pittsburg County Feed Co., capital \$5000, inceptd. by Ernest Akin of Kiowa, Vince Davis and Ben J. Thomas of Wilburton, Okla.

Okla., Walter.—R. H. Drennan Grain Co. will construct mill.

FOUNDRY AND MACHINE PLANTS

D. C., Washington.—Boilermaker's Shop.—Government let contract Boyle-Robertson Construction Co., 1516 H St. N. W., Washington, at \$63,236 to erect boiler-maker's shop at navy-yard.

Ga., Atlanta.—Ranges.—Hec Manufacturing Co., capital \$2500, inceptd. by Chas. J. Jones, Arthur Tufts and A. B. Ware.

Ga., Atlanta.—Cotton Picker.—Cotton Picker Co. of America, capital stock \$250,000, L. F. Wegerly, Secy.-Treas., 1539 Marquette Bldg., Chicago, Ill., and Candler Bldg., Atlanta, advises Manufacturers Record: Will begin manufacture of cotton picker; not equip factory at present; will let contracts for the machines (Stukenborg invention). In October, 1917, Carroll Stukenborg of Chicago, and others noted as planning organization of company. (See Machinery Wanted—Cotton-picking Machines.)

Md., Baltimore.—Machine Shop.—John M. Lawrence, 1624 S. Charles St., has plans by Stephen W. Price, 1922 Harlem Ave., Baltimore, for machine shop; 1 story; brick.

Miss., Meridian.—Freight Cars.—Sam A. Neville proposes to establish plant for manufacturing freight cars.

Mo., St. Louis.—Plumbing.—Fitzgerald Plumbing Co. will repair factory; cost \$12,000.

Ky., Lexington.—Mammoth Producers' Oil Co. organized with Wm. A. Carter, Prest.; Jas. Donnelly, V.-P.; W. A. Axtelher, Treas.; Alex. Rahm, Secy.; all of St. Louis, Mo.; has 500 acres in Lee County and additional acreage in Breathitt and Wolfe counties. (Lately noted inceptd. with \$100,000 capital.)

Ky., Lexington.—Gordon Oil & Gas Co., capital \$100,000, inceptd. by Max Gordon, Robt. Mitchell and M. M. Lasky; all of Detroit, Mich.

Ky., Winchester.—Superior Oil & Gas Co., capital \$50,000, inceptd. by W. V. Thraves, B. R. Jouett, M. T. McEldowney and F. J. Jouett.

Okla., Aline.—Al-Co. Oil, Gas & Refining Co., capital \$100,000, inceptd. by L. J. Dixon and L. H. Stephens of Aline, and I. A. O'Shaughnessy of Blackwell, Okla.

Okla., Blackwell.—Runnede Oil & Gas Co., capital \$200,000, inceptd. by J. T. Stout, Wm. Flood and J. E. Mott.

Okla., Chickasha.—Petit Oil Co., capital \$35,000, inceptd. by W. H. Burgess, C. W. Parsons and W. T. Phillips.

Okla., Enid.—Gant Oil Co., capital \$50,000, inceptd. by W. L. Moore, I. S. Harrington and H. C. McKeever.

Okla., Hobart.—Reciprocal Oil Co., capital \$100,000, inceptd. by F. H. Babcock, A. B. Wey and J. H. Cline.

Okla., Muskogee.—Guaranty National Oil & Gas Co., capital \$250,000, inceptd. by G. W. Kirwood, J. L. Greaber and Herbert Gibson.

Okla., Oklahoma City.—Kellyville Oil & Production Co., capital \$150,000, inceptd. by J. E. Kitchen, W. J. Davison and H. J. Muller.

Okla., Oklahoma City.—Oil Refinery.—Oklahoma-Kansas Refining Co. chartered with

Tenn., Lafayette.—Kansas-Tennessee Oil & Gas Co., capital \$100,000, inceptd. by J. R. Freeman, S. M. Johnson, J. M. McDonald and others.

Tenn., Memphis.—Oil Station.—Shelby County Comms. purchased 1½-acre site on which to erect oil station; concrete tanks with aggregate capacity of 60,000 gals., with separate compartments to heat oil for roads in varying quantity; cost \$10,000; construction under supervision of State Highway Com.

Tenn., Houston.—Weimar Oil Co., 405 Foster Bldg., S. Luddington, Engr., will install ½ mi. 2½-in. pipe; operate pumping stations, capacity 1000 bbls. Lately noted inceptd. capital stock \$50,000. (See Machinery Wanted—Pipe (Oil), Pumps, etc.)

Tenn., Wichita Falls.—Liberty Petroleum Co., capital \$25,000, inceptd. by J. N. Wilson, C. W. Reid, W. C. Myers and others.

Tenn., Wichita Falls.—Oil Refinery.—Sunshine State Oil Co., 212 First National Bank Bldg., increased capital from \$100,000 to \$300,000; will build oil refinery; has 25-acre site; develop 20,000 acres oil land.

W. Va., Charleston.—Gasoline.—Lawrence Oil & Gas Co., 606 Charleston National Bank Bldg., will install 1½ mi. 4-in. pipe; install pumping stations later; has let part of drilling contract; ready for bids on gasoline plant to be installed. (See Machinery Wanted—Gasoline Plant.)

W. Va., Clarksburg.—C. J. Sams Drilling Co., capital \$10,000, inceptd. by W. A. Gaylord and W. T. Wallis of Clarksburg, G. L. Petrey of Wilsonburg, W. Va., and others.

W. Va., Parkersburg.—Crotty & Co., capital \$500,000, inceptd. by J. W. Crotty, M. J. Crotty, Jas. F. Alexander and others.

HYDRO-ELECTRIC PLANTS

Ala., Kelson.—Columbia Power Co., Columbia, Ala., Dermott Shemwell, Prest., Lexington, N. C., proceeding with hydro-electric developments previously noted; 1500 H. P.; cost \$250,000; 2 reinforced concrete power dams; timber storage dam; 26 mi. 44,000-volt lines; furnish electricity to Dothan, Columbia and Headland, Ala.; all equipment purchased; construction by the company; Tucker & Laxton, Engrs., Charlotte, N. C.

Ga., Montezuma.—Jas. Harrison and E. M. McKenzie will install hydro-electric plant on Whitewater Creek, 4 mi. from Montezuma; transmit electricity to Montezuma and Oglethorpe for lighting and power.

Md., Monkton.—Monkton Roller Mills, Otis E. McCoy, Prest., Mt. Washington, Md., will build hydro-electric plant, cost \$25,000, to operate flour mill; concrete dam and powerhouse; ½ mi. transmission; develop 100 H. P.; power from Gunpowder River. See Flour, Feed and Meal Mills. (See Machinery Wanted—Electrical Equipment, etc.; Cement; Turbines.)

N. C., Raleigh.—Empire Steel Co., Joel F. Armistead, representative, proposes to build hydro-electric plant developing 10,000 H. P. for electrical drive in proposed steel plant, etc. (See Iron and Steel Plants.)

ICE AND COLD-STORAGE PLANTS

Md., Annapolis.—Parlett & Parlett Co., Water and Dock Sts., will rebuild branch ice factory reported burned at loss of \$35,000.

S. C., Greenville.—W. H. Balentine, 115 W. Coffee St., will install 10-ton ice machine and small cold-storage rooms in connection with sausage-manufacturing plant. See Miscellaneous Factories. (See Machinery Wanted—Ice and Cold-storage Machinery.)

Tenn., Fort Worth.—Texas Brewing Co. will erect addition to cold-storage plant; cost about \$300,000.

IRON AND STEEL PLANTS

Ala., Jenifer.—Iron Furnace.—Central Alabama Coal & Iron Co. purchased Jenifer Furnace Co.; reported as preparing to blow in iron furnace.

N. C., Raleigh.—Steel Plant, etc.—Empire Steel Co. chartered with \$4,000,000 capital by Charles H. Twist of New York, J. S. Long, Prest. of Gulf Iron Works, Tampa, Fla., and associates; Joel F. Armistead, representative, Raleigh, wires Manufacturers Record outlining new company's proposed plant as follows: Steel plant with annual capacity of 100,000 tons; blooming-mill; bar-mill; tube-mill; manufacture seamless steel tubes and merchant bar steel; electrical drive throughout; build hydro-electric plant developing 10,000 H. P. Representative Armistead further writes to Manufacturers Record: Propose to build steel plant with annual capacity 100,000 tons; later add bar mill and tube mill; specialize on seamless steel tubes made

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Page 87

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

Rate 25 cents per line per insertion.

The PROPOSAL department goes to press 5 P. M. Tuesday for the issue of the following Thursday. If you cannot mail advertisement in time for any particular issue, please wire copy by day letter.

Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

N. C., Durham.—Scales.—Liberty Scales Co., capital \$50,000, inceptd. by E. B. Webster and R. T. Perry of Durham, and David Long of Roxboro, N. C.

Okla., Tulsa.—Pipe.—Central Pipe & Supply Co., capital \$25,000, inceptd. by Albert H. Bell, T. E. Fischer and Ray S. Fellows.

W. Va., New Cumberland.—Machinery.—Hancock Foundry & Machine Co., capital \$25,000, inceptd. by J. J. Huttmacher, L. L. Bainbrick, L. S. Bainbrick and others.

W. Va., Slatersville.—Welding Plant.—Slatersville Acetylene Welding Co., capital \$5000, inceptd. by B. F. Webb, C. T. Webb, J. J. Kelly and others.

GAS AND OIL ENTERPRISES

Ala., Birmingham.—Aldrich-Dome Gas & Oil Co., capital \$5000, inceptd. by D. A. Green, Prest.; T. M. Fincher, Secy.-Treas.

Ark., Fort Smith.—Oil Refinery.—Ozark Oil & Refining Co., capital \$1,500,000, organized by Alex. Calvert and C. E. Ditto, both of Fort Smith, Edwin Starkey of Denver, Col., and others; parent corporation for Ozark Refining Co. and kindred corporations; purchased Prospect Oil & Gas Co. and leases on 7500 acres in Sebastian County; plans to expend \$100,000 for improvements to include 3 additional stills to double daily output of refinery to 600 bbls. oil.

Ark., Helena.—Gas Plant.—Helena Gas & Electric Co. increased capital from \$300,000 to \$500,000.

Ga., Waycross.—Gas Plant.—Consumers' Gas & Coke Co. let contract Park-Morand Co. of Waycross to install gas-producing unit to increase capacity about 50 per cent. (Lately noted to issue \$15,000 bonds for improvements.)

Ky., Lexington.—Badger Oil Co., capital \$500,000, inceptd. by A. L. Stengel, G. W. Rankin, W. D. Jones and E. B. Irvan.

\$1,000,000 capital by A. M. Halloran, Ferris Giles and E. Unfried, all of Wilmington, Del.

Okla., Oklahoma City.—Oil Refinery.—Sunflower Petroleum & Refining Co., capital \$30,000, inceptd. by E. F. Smith, C. W. Cole and E. S. Sullivan.

Okla., Oklahoma City.—Oil Refinery.—Bankers' Producing & Refining Co., capital \$100,000, inceptd. by Jas. S. Gladish, J. W. Love and C. H. Stewart.

Okla., Oklahoma City.—Lubricating Plant.—Oklahoma Lubricating Co., A. W. McSpadden, Prest., Tulsa, Okla., will build plant to manufacture hard greases and lubricating oils; fireproof construction; cost \$100,000.

Okla., Pawnee.—M. B. & M. Gas & Oil Co., capital \$6000, inceptd. by A. B. Mallory, D. S. Batdorf and Geo. E. Merritt.

Okla., Picher.—Oil Pipe Line.—Goodeagle Refining Co., Baxter Springs, Kan., plans to construct pipe line from refinery at Baxter Springs to Picher to supply fuel oil to mines at Picher.

Okla., Tulsa.—Gasoline.—Mileage Gasoline Co. increased capital from \$200,000 to \$350,000.

Okla., Tulsa.—McKeever Drilling Co., capital \$25,000, inceptd. by H. B. McKeever, Chas. McKeever and Nell T. McKeever.

Okla., Tulsa.—Angier Petroleum Co., capital \$5000, inceptd. by Stanley A. Zahn, J. K. Finlayson and L. R. McCollum.

Okla., Tulsa.—Bellmont-Willett-Brown Oil Co., capital \$250,000, inceptd. by H. B. Belmont, A. H. Willett and J. B. Brown.

Okla., Tulsa.—Sazet Oil & Gas Co., capital \$25,000, inceptd. by J. A. Stinson and F. W. Dillard of Tulsa, and J. A. Gulick of Dallas, Tex.

Okla., Tulsa.—Universal Lubricating Co., capital \$10,000, inceptd. by W. J. Hermann and J. P. Harper of Tulsa, and J. S. Mullen of Ardmore, Okla.

Twist continuous hot-roller process; also manufacture lap and butt welded pipe; expects to eventually universalize plant.

LAND DEVELOPMENTS

Ark., Nashville.—Ozark Seed & Plant Co., capital \$30,000, incptd. by J. S. Norman, J. Winter, Alonzo Walker and J. S. Bull.

Fla., Miami.—Chevalier Corporation, capital \$500,000, will develop 207,360 acres in northern Monroe and western Dade counties; construct hard-surfaced highway; lay off town site; develop sugar cane, sisal and other farm and field crops; raise stock; development under progressive plan; estimated expenditure \$3,000,000; all work supervised by the corporation; no bids, excepting for machinery as needed; Engr., F. K. Ashworth, Miami. (In January noted chartered; J. F. Jaudon, Pres.; P. B. Jaudon, V.-P.; Geo. F. Cook, Secy. Additional facts also previously noted in 1917.)

Fla., Tallahassee.—The Corporation of Florida chartered with \$5,000,000 capital by Chas. W. Phillips, Harvey P. Goldstein and Lucy Stengel, all of New York.

Ga., Savannah.—Seacoast Farm Co., capital \$10,000, incptd. by Murray M. Stewart, Rogers S. Wood and A. H. Stoddard.

La., Monroe.—City engaged C. W. Hughes, Landscape Archt., Chicago, to prepare plans and specifications for improving 22 acres of land for cemetery.

Okla., Tulsa.—Acme Gardens Addition Co., capital \$10,000, incptd. by S. W. Mitchell, G. F. Berry and C. E. Rice.

Tex., McAllen.—McAllen Townsite Co. organized; T. G. Trotti, Pres.; D. H. Trotti, V.-P. and Secy.; W. E. Trotti, Treas.; develop townsite; improve streets. (Lately noted incptd., capital stock \$25,000.)

W. Va., Dunbar.—Summers Land Co., 710 1/2 Kanawha St., Charleston, W. Va., capital \$10,000, incptd.; L. C. Summers, Pres.; John Rader, Secy.; develop 30 acres in 1-acre farms.

LUMBER MANUFACTURING

Ala., Birmingham.—Steel City Lumber Co. increased capital from \$40,000 to \$50,000.

Ala., Tuscaloosa.—Stevens-Daly Lumber Co., capital \$50,000, incptd. by T. J. Stevens of Tuscaloosa, C. L. Grey, J. G. Daly and others of Meridian, Miss.

Ark., Texarkana.—Standard Lumber Co., capital \$100,000, incptd. by H. P. and C. W. Fenske and Geo. Weber.

Ark., West Memphis.—Sweeney Manufacturing Co., capital \$25,000, organized with A. Sweeney, Pres.; A. X. Miller, Mgr.; purchased sawmill and will enlarge; installing machinery to cut dimension stock; Wm. L. Johnson will erect 15 to 20 dwellings for employees.

Fla., Apalachicola.—Long Shore Lumber Co., capital \$10,000, incptd.; N. R. Hays, Pres.; R. F. Ennis, V.-P. and Gen. Mgr.; A. B. Gibson, Secy.-Treas.

Ga., La Grange.—La Grange Lumber & Supply Co., capital stock \$75,000, organized by West Point Iron Works, West Point, Ga., which purchased Pike Bros. Lumber Co.'s plant; manufacture sash and doors, wholesale and retail lumber, building and mill supplies.

S. C., Sumter.—Brynum Lumber Co., capital \$10,000, incptd. by W. E. Brynum and A. J. Brynum.

Tex., Conroe.—Morse-Johnston Lumber Co., capital \$30,000, incptd. by T. M. Johnston of Conroe, J. M. Morse and Wesley Morse, both of Linden, Tex.

Tex., Houston.—Jesse H. Jones Lumber Co. increased capital from \$100,000 to \$200,000.

METAL-WORKING PLANTS

Md., Baltimore.—Metal Packages.—Federal Tin Co., 11 E. Barre St., let contract West Construction Co., American Bldg., Baltimore, to improve plant.

Md., Curtis Bay.—Bolts.—Maryland Bolt Works, Continental Trust Bldg., Baltimore, having plans prepared for addition.

W. Va., Stony Bottom.—Buena Vista Hardware Co., capital \$50,000, incptd. by I. B. Baumgardner, H. I. Baumgardner, M. P. Pogue and others.

MINING

Ala., Ashland.—Graphite.—Graphite Mills Co. increased capital from \$50,000 to \$250,000.

Ala., Ashland.—Graphite.—Greisemer Graphite Co. will rebuild mining plant, 5 mi. from Ashland, reported burned at loss of \$200,000.

Ala., Birmingham.—Graphite.—Liberty Graphite Co., capital \$25,000, incptd.; Carl

Steiner, Pres.; J. M. Levine, Secy.; Sigfried Steiner, Treas.

Ala., Jacksonville.—Calhoun Land & Mining Co., capital \$25,000, incptd. by W. I. Greenleaf, T. J. Waldrop and H. V. Weaver.

Ark., Zinc.—Lead and Zinc.—Boo-Gra-Loo Mining Co., Pawhuska, Okla., organized; W. E. Graham, Pres.-Mgr.; H. M. Loomer, Secy.; R. B. Boone, Treas.; develop 200 acres. Lately noted incptd., capital \$10,000. (See Machinery Wanted—Drill (Core) Equipment.)

Okla., Ardmore.—Lead and Zinc.—Galconda Mining Co., capital \$15,000, incptd. by John N. Imrie, E. E. Chivers and W. J. Lane.

Okla., Ardmore.—Lead and Zinc.—Golconda Mining Co., capital \$15,000, incptd. by John M. Imrie, E. E. Chivers and O. C. Lasher.

Okla., Durant.—Minerals.—Western Mineral Co., capital \$200,000, incptd. by D. S. MacDonald of Durant, Emery Wiley and N. C. Calvert of Denison, Tex.

Okla., Miami.—Lead and Zinc.—Billikin Mining Co., H. J. Aycock, Pres., will build mill; has let contract.

Okla., Miami.—Lead and Zinc.—Ellsworth Mining Co., capital \$150,000, incptd. by Lloyd Weber and J. Wise Brown of Tulsa, and A. B. Ellsworth of Joplin, Mo.

Okla., Miami.—Lead and Zinc.—Producers' Lead & Zinc Co. will construct 300-ton mill.

Okla., Miami.—Lead and Zinc.—Red Rose Lead & Zinc Mining Co., W. D. Adkins, Pres., Holdenville, Okla., will build 200-ton mill.

Okla., Miami.—Lead and Zinc.—True Blue Mining Co., John F. Turber, Pres., Holdenville, Okla., will build 250-ton mill; purchased plant; awarded construction contract.

Okla., Miami.—Lead and Zinc.—Lucky Joe Mining Co. will install 250-ton mill; has let contract.

Okla., Miami.—Lead and Zinc.—Century Mining Co., Room 8, Gillespie Bldg., organized; John Q. Newell, Pres., Oklahoma City; J. C. Troutt, V.-P., Kelleyville, Okla.; G. M. Weems, Secy.-Treas.; L. B. Parker, Fiscal Agent, both of Miami; develop 40 acres; will build 300-ton mill.

Okla., Muskogee.—Lead and Zinc.—Constitutional Lead & Zinc Mining Co. (after March 1, Miami, Okla.) organized; Wm. S. Rogers, Pres.-Mgr.; W. J. Pack, V.-P.; S. S. Gill, Secy.; Robt. Van Meigs, Treas.; develop 120 acres; mill equipped, ready for operation; 500-ton capacity, double shift; operate on full time within few weeks, as drift is extended. (Lately noted incptd., \$300,000 capital.)

Okla., Oklahoma City.—Lead and Zinc.—Magnolia Lead & Zinc Co., 912 Herskowitz Bldg., organized; J. B. Aiken, Pres.-Mgr.; E. M. Butler, V.-P.; W. A. Darby, Secy.-Treas.; develop 400 acres; build 4 mills of 250 tons each near Miami, Joplin and Waco. Lately noted chartered, \$250,000 capital. (See Machinery Wanted—Mining Machinery.)

Okla., Oklahoma City.—Lead and Zinc.—Velvet Mining Co. organized to develop 40-acre lease; H. L. Davenport, Pres., Oklahoma City; H. W. Stahlheber, V.-P., Geary, Okla.; D. Dawedoff, Secy.-Treas., Oklahoma City.

Okla., Oklahoma City.—Lead and Zinc.—Bankers' Zinc & Lead Co., capital \$250,000, incptd. by G. A. Morris of Oklahoma City, W. A. McAtee of Hastings, Okla., and H. E. Brouillard of Wapanucka, Okla.

Okla., Picher.—Lead and Zinc.—Over The Top Mining Co., L. W. Seaton, Pres., Chickasha, Okla., will build concentrating plant.

Okla., Quapaw.—Lead and Zinc.—Kentex Mining Co., E. C. Mabon, Pres., Miami, Okla., will build concentrating plant.

Okla., Shawnee.—Lead and Zinc.—Best Mining Co., capital \$200,000, incptd. by S. H. Lester, M. J. McLaughlin and H. B. Callahan.

Tex., Benjamin.—Copper.—Brazos-Wichita Copper Co. will build smelter.

Tex., Pecos.—Standard Operating Co., capital \$10,000, incptd. by John B. Howard, W. G. Yates, B. T. Biggs and others.

Tex., Pecos.—Sulphur.—Toyah Texas Sulphur Co. organized; Jas. C. Buchanan, Pres., 901 M St. N. W.; Oscar T. Wright, Secy., Texas, 511 11th St.; both of Pecos; Pres. Buchanan wires and writes to Manufacturers Record; Develop 600 acres Culberson County; surface beds; mine by steam shovel; install retort for reducing sulphur ore. (See Machinery Wanted—Shovel; Retort.)

Va., Petersburg.—Soapstone.—P. F. Kennedy, Box 166, plans installation of equipment to quarry soapstone and saw it into rough slabs. (See Machinery Wanted—Quarrying Equipment; Saws.)

MISCELLANEOUS CONSTRUCTION

Fla., Pensacola.—Pier and Quay Wall.—Government will construct timber and concrete earth-filled pier and quay wall at Naval Air Station; bids until Mch. 4. (See Machinery Wanted—Pier and Quay Wall.)

La., Monroe.—River Terminals.—City will construct river terminals to cost \$28,000; first building to be freight warehouse; only part of general plan will be undertaken at present. Address The Mayor.

Tex., Beaumont.—City will construct following work at Kirby's Point: 1000, 750 and 500 ft. of quays, including dredging, removal of old piles, etc.; concrete construction; bids until March 5; C. L. Scherer, City Engr.; J. G. Sutton, City Secy.; lately noted to invite bids. (See Machinery Wanted—Quay Construction.)

MISCELLANEOUS ENTERPRISES

Ala., Atmore.—Livestock.—Escambia Livestock Co., capital \$10,000, incptd.; J. P. McMurphy, Pres.; R. F. Cruik, Jr., Secy.; W. E. West, Treas. and Mgr.

Ark., Jonesboro.—Printing.—Riley Printing Co., capital \$10,000, incptd. by Robt. Sammons, F. H. Watson, F. E. Godwin and others.

Ala., Montgomery.—Plumbing.—Michael Supply Co., capital \$18,000, incptd. by C. H. Michael, W. H. Taylor and Gertrude W. Michael.

D. C., Washington.—Portable Laundries.—Broadport Portable Laundry Corp., 208 Colorado Bldg., will furnish portable army laundries for Government use in this country and abroad; has buildings. (Lately noted chartered, capital \$100,000, by Jas. T. Broadbent, Frank F. Mitchell and Le Roy Mark.)

Fla., De Land.—Printing.—Record Printing Co. organized; Elizabeth Prevatt, Pres.; P. G. Prevatt, Secy.-Mgr., continues established printing plant. (Lately noted incptd., capital \$10,000.)

Fla., Miami.—Stock Raising.—Chevalier Corporation, J. F. Jaudon, Pres., will include stock raising in 307-acre development in northern Monroe and western Dade counties. (See Land Developments.)

Fla., St. Andrew.—Publishing.—St. Andrew Bay News will erect printing plant; brick; 40x70 ft.; has let contract to furnish brick.

Ga., Macon.—Taxicabs.—Stallworth Taxicab Co., capital \$1000, incptd. by Paul and Nettie Stallworth.

Md., Myersville.—Grain Elevator.—Farmers' Exchange, John T. Gower, Pres., lately noted to improve grain elevator, has a completed building; will install machinery. (See Machinery Wanted—Sheller; Crusher and Grinder; Conveyor.)

Miss., Charleston.—Hardware.—Delta Hardware Co., capital \$15,000, incptd. by C. F. Matthews, J. B. Crow and Mrs. L. Q. Matthews.

N. C., Burlington.—Plumbing and Heating.—Kirkman Plumbing & Heating Co., capital \$25,000, incptd. by L. E. Kirkman and Lacy G. Kirkman of Burlington, and E. S. Parker, Jr., Graham, N. C.

N. C., Durham.—Laundry.—Durham Laundry leased building adjoining present location and will install additional machinery; equipment ordered.

N. C., Goldsboro.—Stock Farm.—Sasser Stock Farm, capital \$8000, incptd. by John W. Sasser of Goldsboro, L. B. Sasser of Wilmington, N. C., and Ida M. Jordan of Raleigh, N. C.

N. C., Wilmington.—Steamship Line.—Wilmington-Carolina Beach Steamship Co., capital \$50,000, incptd. by A. W. Pate, J. B. Fox and U. A. Underwood.

S. C., Newberry.—Cleaning.—Sanitary Cleaning Co., capital \$3000, incptd. by M. G. Sheppard and E. M. Sheppard.

Tex., Galveston.—Construction.—Binyon-O'Keefe Construction Co., capital \$70,000, incptd. by W. J. Binyon of Galveston, C. A. O'Keefe and D. J. Collett of Fort Worth, Tex.

Tex., San Antonio.—Publishing.—Express Publishing Co. will erect 2-story reinforced concrete building; bids until Feb. 16; plans and specifications from August A. Herff Co., Archts., 2d floor, San Antonio Loan & Trust Bldg., San Antonio.

Va., Fredericksburg.—Publishing.—Free Lance-Star Publishing Co. increased capital from \$25,000 to \$30,000.

Va., Roanoke.—Publishing.—Press Publishing Co. capital \$50,000, incptd.; S. B. Cox, Pres.; W. O. Lipscomb, Secy.-Treas.

W. Va., Bluefield.—Dry Cleaning.—Sanitary Dry Cleaning Works will erect dry-cleaning plant.

W. Va., Charleston.—Engineering.—Valley Engineering Co., Claire D. Schlemmer, Pres., Kanawha National Bank, will conduct civil and mining engineering; specialize on realty and municipal improvements. (Lately noted chartered, capital \$25,000.)

W. Va., Spencer.—Printing.—Times-Record, (S. A. Simmons and H. C. Woodyard) will rebuild printing plant reported burned; erect 20x44-ft. 1-story building, cost \$1500; Spencer Brick Co. probable contractor; plans by A. C. Thomasson, Spencer; install machinery, cost \$7000; weekly newspaper and job printing.

MISCELLANEOUS FACTORIES

Ala., Anniston.—Bottling.—Anniston Buffalo Rock Co., capital \$5000, incptd. by W. H. Weatherly, J. B. Carrington, H. L. Badham and others.

Ala., Birmingham.—Peanut mill.—Union Cotton Oil Co., Fifth Ave. and 4th St., will rebuild peanut mill and warehouse reported burned at loss of \$75,000.

Ala., Muscle Shoals.—Nitrates, etc.—William Simonson, chemist, Cincinnati, Ohio, and Cincinnati capitalists are reported organizing \$1,000,000 corporation to build plant for manufacturing nitrates, ammonia, chlorine and dye stuffs by Simonson process; Forest C. Nevin, Mgr., 1033 Central Ave., Cincinnati, wires Manufacturers Record: Will incorporate company for \$100,000 to care for proposition with unlimited capacity.

Ark., Camden.—Marble.—E. P. Clouse will rebuild burned plant for Camden Marble Works.

Ark., Little Rock.—Paint.—Southern Paint Mfg. Co., Camden, Ark., will build paint factory.

Ark., Paragould.—Harget-Staudt Mfg. Co., capital \$15,000, incptd. by A. G. Harget, John Staudt and A. W. Jackson.

Fla., Tampa.—Varnish.—Seminole Varnish Co., capital \$500,000, organized by Gustave Tuschell (114 Lafayette St.) and others.

Ky., Ashland.—Tannery.—Ashland Leather Co. will rebuild tannery reported burned at loss of \$50,000.

Ky., Maysville.—Fly Nets, etc.—Maysville Fly Net Factory, capital \$10,000, incptd. by C. C. Ramage, I. N. Ramage and N. S. Kelsey.

La., New Orleans.—Crackers.—Klotz Cracker Factory let contract Jas. A. Petty, 607 Godchaux Bldg., New Orleans, at \$32,029 to erect cracker factory; 84x145 ft.; 3 stories; silica brick; hardwood floors; elevators; plans by Nolan & Torre of New Orleans. (Reported in November to rebuild burned plant.)

Md., Baltimore.—Vinegar.—Baltimore Mfg. Co., Central Ave. and Bank St., let contract West Construction Co., American Bldg., Baltimore, to enlarge and improve plant. (Lately noted as having plans prepared.)

Md., Barton.—Artificial Limbs, etc.—Maryland Orthopedic Co., C. Russell Cox, representative, will erect plant to manufacture artificial limbs, extension shoes, etc.

Md., Curtis Bay.—Alcohol.—United States Industrial Alcohol Co., 27 William St., New York, let contract to The Austin Co., 1026 Bulletin Bldg., Philadelphia, Pa., to erect 2 additional buildings, each 60x100 ft., with balcony floor; 8-in. hollow-tile steel construction; and one 60x120-ft. building of corrugated iron or steel.

Mo., Kansas City.—Chemical Products.—Midwest Chemical Products Co., 229 Southwest Boulevard, will re-establish plant reported burned.

Mo., Kansas City.—Trunks.—Nuss & Moore Trunk Co., 1408-10 Walnut St., will re-establish trunk factory reported burned at loss of \$25,000 on building and \$20,000 on contents.

Mo., St. Louis.—Transparent Substances.—Translucine Manufacturing Co., capital \$10,000, incptd. by Chas. Hetzel, Peter F. Smith, M. H. Schroeder and others.

Mo., St. Louis.—Curled Hair.—Delaney & Co. will remodel factory at 411-13 N. Eleventh St.; cost \$12,000.

Mo., St. Louis.—Chemicals.—Monsanto Chemical Co. will erect addition; 1 story; cost \$20,000.

N. C., Charlotte.—Beds, etc.—Ira Turner will install equipment to manufacture feather beds, cots, pillows, etc.; operate as Turner & Co.

N. C., Winston-Salem.—Coffee.—Twin City Coffee Co., capital \$50,000, incptd. by W. A. Lemley, A. E. Holton and Frank P. Holton.

Okla., Watonga.—Clothing.—Hub Clothing Co., capital \$25,000, incptd. by W. H. Heberrecht, S. O. Thomas and E. T. Heberrecht.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

S. C. Greenville—Sausage.—W. H. Balentine, 115 W. Coffee St., will establish sausage factory; install 10-ton ice machine.

S. C. Greenville—Harris-Brockman Mfg. Co., capital \$600,000, inctpd. by B. S. H. Harris, Jr., and J. O. Brockman.

S. C. Walhalla—Fire Detector.—American Automatic Fire Detector Co., capital \$20,000, inctpd.; Harry R. Hughes, Pres.; W. C. Hughes, V.-P. and Secy.; both of Walhalla; Philip P. Toale, Mgr., Wagener, S. C.; will have detectors manufactured.

Tenn., Chattanooga.—Indian Manufacturing Co., capital \$50,000, inctpd. by Gaston C. Raoul, Adam Haskell, O. E. Keyser and others.

Tenn., Hadley's Bend—Explosives.—War Dept., Washington, D. C., engaged Du Pont Engineering Co., subsidiary of E. I. du Pont de Nemours & Co., Wilmington, Del., to supervise construction and organization of \$500,000 explosives manufacturing plant with accompanying industrial city improvements; now gathering materials and workmen; plant proper to cost \$45,000,000; other improvements, including electric-lighting system, water-works, sewers, paved streets, sidewalks, dwellings, etc., to cost \$15,000,000; daily capacity, 500,000 lbs. smokeless powder and 500,000 lbs. gun-cotton; by-products to include fakiroid (leather substitute), pyralin (ivory and shell substitute), dye materials, ether, etc.; build plant in 10 units, each of 100,000 lbs. powder and 100,000 lbs. gun-cotton; each unit as distinct factory not contiguous to other units; entire plant 5 mi. long; railway service throughout plant and town; after completion Du Pont management will operate plant for 6 months. (Plans detailed recently include reference to 5000-acre site, factory buildings covering 2000 acres, several thousand dwellings for employees, Thompson-Starrett Co., Gen. Contr., 51 Wall St., New York, etc.)

Tenn., Memphis—Bugs.—Bosworth Bag Co. increased capital from \$100,000 to \$250,000; contemplates building of leasing larger quarters; plans not definite; output, new and second-hand burlap bags.

Tenn., Memphis—Pharmaceuticals.—Wm. A. Webster Co., 77 McCall Bldg., will open bids Feb. 20 to construct 150x163-ft. mill-construction building; cost \$30,000; plans by C. O. Pfeil, Union & Planters' Bank, Memphis; install heating equipment; manufacture pharmaceuticals.

Tenn., Dallas—Paper Boxes.—Pollock-Burt Paper Box Co., 201-12 N. Lamar St., organized with \$10,000 capital; Lawrence S. Pollock, Pres.; W. J. Burt, V.-P. and Gen. Mgr.; Sol Dreyfuss, Secy.-Treas.; occupy 2-story factory building being erected at 2009-13 Carter St.; 10,000 sq. ft. floor space; specialize in manufacture of fancy candy boxes.

Tenn., El Paso—Caustic Soda, etc.—Southern Chemical Co., 1213 Mills Bldg., capital \$20,000, inctpd.; David S. Russek, Pres.-Treas.; Marcus Russek, Jr., V.-P.; Leo Rosenfeld, Secy.; R. J. Anderson, Mgr.; W. H. Seamon, Constr. Engr.; manufacture caustic soda, soda ash and sodium sulphate; monthly output, 500 tons caustic soda and 300 tons soda ash.

Tenn., Fort Worth—Boxes.—Makings Company, capital \$15,000, inctpd. by B. A. Rose, L. P. McCauley and Joe Kingsbery, Jr.; manufacture "Rose Makings Box."

Va., Crockett—Sauerkraut.—John S. Dix will establish company to manufacture sauerkraut; erect building. (See Machinery Wanted—Kraut Machinery.)

Va., Dayton—Lerch Corporation, capital \$100,000, chartered; Harry M. Lerch, Pres.; F. Thos. Lerch, Secy.-Treas.; both of Lerch Bros., 110-14 Hanover St., Baltimore, Md.

Va., Dayton—Leather Products, Hardware, etc.—Lerch Corporation, capital \$100,000, chartered; Harry M. Lerch, Pres.-Mgr.; F. Thos. Lerch, Secy.-Treas.; both of Lerch Bros., 110-14 Hanover St., Baltimore, Md.; F. S. Dill, V.-P. and Asst. Mgr., Dayton.

Va., Lynchburg—Splints.—First Aid Splint Corp., capital \$100,000, chartered to manufacture patented first-aid splint package; E. Barksdale, Pres.; S. W. Patterson, Jr., Secy.-Treas.

Va., Norfolk.—Waterman-Enright Corp., capital \$25,000, chartered; D. A. Enright, Pres.; Frank A. Waterman, Secy.-Treas.

Va., Norfolk.—Paper Boxes.—Aero-Plane Folding Paper Box Co., capital \$100,000, incorporated; W. Frank Robertson, Pres.; A. Week, Secy.

Va., Richmond.—Mattresses.—Dixie Mattress Co. will occupy building to be erected by J. L. Sutherland & Sons, owners, at rear 1405 W. Main St., as addition to mattress factory; 25x91 ft.; 3 stories; reinforced concrete; slag roof; concrete floors; cost \$14,000; heating plant to be added later; electric lighting included in contract; plans by Albert F. Hunt, Richmond; contract let in Jan. to Jas. F. Fox & Sons, Richmond. (Lately noted.)

W. Va., Charleston—Ice Cream.—Cline Ice Cream Co. of Athens, Ohio, will build ice-cream factory.

W. Va., Huntington—Toys.—Wilkinson & Payne Co., capital \$25,000, inctpd. by R. N. Wilkinson, E. Payne, H. G. Bowman and others.

MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Birmingham—Motors, etc.—Bradley-Matthews Spring & Motor Co., capital \$500, inctpd.; T. M. Bradley, Pres.-Treas.; P. F. Hollerstedt, V.-P. and Secy.; J. R. Matthews, Gen. Mgr.

Ala., Gadsden—Garage.—H. M. Johnson will probably rebuild garage on North Eleventh St., reported burned; burned structure was occupied by Queen City Garage.

Ark., Little Rock—Garage.—Cook Automobile Co. will occupy building to be erected by Jack and Jas. O'Brien; structure will be of brick, 50x150 ft.; sprinkler system.

Ark., Little Rock—Battery-charging Station.—Little Rock Battery Co. will occupy building 50x140 ft., to be erected at Twelfth and Main Sts.; Leveck & Son, Contrs., Little Rock.

D. C., Washington—Automobile Supplies.—Fourteenth Street Auto Supply Co., chartered with \$20,000 capital by Richard A. Israel and Frank L. Peckham of Washington, and Frank B. Gibb of Chevy Chase, Md.

Fla., Jacksonville—Garage.—H. Green will erect garage; 2 stories; brick veneer; cost \$2000.

Fla., Oldsmar—Farm Tractors.—Kardell Tractor & Truck Co., St. Louis, Mo., will build plant to manufacture farm tractors and trucks; has plans and specifications.

Ky., Louisville—Garage.—Fred Lang will rebuild garage at 112 Kents Ave. reported burned at loss of \$1000.

La., Lake Charles—Tractor Plows.—B. F. Avery & Sons will establish branch office with service station and repair shop for tractor plows.

Md., Baltimore—Garage.—J. M. Curran will erect garage at Garrison Lane and Franklin St.; 1 story; 50x200 ft.

Md., St. Helena—Automobile Assembling, etc.—War Department, Washington, D. C., will establish automobile assembling plant and salvage station to handle machines from cantonnments in 16 States; has 100-acre site on Colgate Creek, between St. Helena and Sparrows Point, near Baltimore; plans provide for 50 buildings (of 75) of concrete and steel construction; plant machinery to include complete equipment for assembling and repairing motor trucks and other army power vehicles; also build cantonnement for 100 officers and 200 men; estimated cost of plant \$2,500,000; let general construction contract to Edward O. Scheldenheim & Co., Chicago. (Lately noted letting contract to Scheldenheim for automobile assembling plant, etc.)

Mo., St. Louis—Garage.—Yale Garage & Motor Car Co. will erect garage at 8th St. and Lucas Ave.; reinforced concrete and vitrified brick; machine and repair shop; inclined driveway to second floor; cost \$50,000; plans by Saum Architects, St. Louis.

N. C., Asheville—Automobiles.—Orange Star Auto Line, capital \$25,000, inctpd. by Serval Herbert, Raymond C. Ashby and S. G. Bernard.

N. C., Ayden—Automobiles.—Eure Motor Co., capital \$10,000, inctpd. by T. F. L. B. and S. A. Eure.

N. C., Scotland Neck—Motor Cars.—N. A. Riddick Motor Car Co., capital \$25,000, inctpd. by N. A. Riddick, J. A. Riddick and T. B. Wheeler.

Okla., Ardmore—Automobiles.—Master Truck Sales Corp., capital \$20,000, inctpd. by E. O. Alaney, J. L. Crump and E. I. Winfrey.

Okla., Buffalo—Garage.—City Garage, capital \$7000, inctpd. by D. M. Neathery, H. B. Williams and M. W. McKenzie.

Okla., Cherokee—Garage.—Northwest Ford Co. is reported as planning to erect building.

Okla., Buffalo—Garage.—City Garage, capital \$7000, inctpd. by D. M. Neathery, H. B. Williams and M. W. McKenzie.

Okla., Chickasha—Automobiles.—Eason-Hill Motor Co., capital \$25,000, inctpd. by A. H. Hill of Chickasha, T. T. Eason and P. A. Parnell of Marlow, Okla.

Okla., McAlester—Machine Shop.—Crutcher Motor Co. will rebuild machine shop reported burned at loss of \$1200.

Okla., Oklahoma City—Garage.—Palace Garage, capital \$1500, inctpd. by D. R. Norris and Lulu B. Norris.

S. C., Anderson—Automobile Showroom, etc.—John E. Sadler will erect building for automobile showroom, etc.; 2 stories; 40x110 ft.; brick; 2 sides almost entirely of glass; steam heat; cost \$25,000; showroom to be tiled and have decorative metal ceiling; plans also provide for service-room, electric department, stockroom, etc.

S. C., Batesburg—Automobiles.—Overland Batesburg Co., capital \$2000, inctpd.; J. B. Holman, Pres., Secy. and Trans.; J. C. Cullum, V.-P.

S. C., Charleston—Automobiles.—Prompt Motor Co., capital \$24,000, inctpd.; Chas. F. Boyd, Pres.; Geo. F. von Koltitz, Secy.-Treas.

S. C., Sumter—Automobiles.—Anchor Auto & Truck Co., capital \$5000, inctpd. by C. G. Rowland and S. K. Rowland.

Tenn., Chattanooga—Auto Bodies.—Brown-Simpson Motor Co. organized; D. S. Simpson, Pres.; A. K. Brown, Secy.-Treas.; E. A. Simpson, Mgr.; has equipped building; makes specialty of commercial auto bodies. (Lately noted inctpd., capital \$10,000.)

Tenn., Columbia—Garage.—A. Brit Davis and Ed. Matthews purchased Hardison Garage and will improve; operate as Davis & Matthews.

Tenn., Nashville—Automobiles.—National Body & Mfg. Co. (Chas. R. Wood and others) will manufacture special passenger bodies for Ford automobiles, worm-drive truck units and complete worm-drive trucks; secured building and machinery; plan output of 3000 pleasure cars and commercial truck bodies during first year. (Lately noted inctpd. with \$75,000 capital.)

Tenn., Leno—Automobiles.—North Leno Auto Co., capital \$2000, inctpd. by C. E. Shults, Worth Peterson and S. D. Rainier.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Moreland—Cincinnati, New Orleans & Texas Pacific Railway (Southern Railway System), B. Herman, Chief Engr. Maintenance of Way and Structures, Charlotte, N. C., will install automatic block signal system between Moreland and South Fork, Ky., 10 mi.; ordered equipment.

N. C., Norlina—Coal Chute.—Seaboard Air Line Railway Co., W. D. Faucette, Chief Engr., Norfolk, Va., let contract to C. V. York, Raleigh, N. C., to rebuild burned mechanical coal elevator, bucket type, 300 tons capacity; plain timber construction, etc.; operation by steam hoist. (Lately noted.)

Okla., McAlester.—Missouri, Kansas & Texas Ry., P. Ringer, Chief Engr., Dallas, Tex., let contract to Fairbanks, Morse & Co., Chicago, for 300-ton mechanical coal chute.

Tenn., Helenwood—Cincinnati, New Orleans & Texas Pacific Railway (Southern Railway System), B. Herman, Chief Engr. Maintenance of Way and Structures, Charlotte, N. C., will install automatic block signal system between Helenwood and Lansing, Tenn., 26 mi.

Tenn., Childress.—Fort Worth & Denver City Railway, R. G. Fitzpatrick, Supt., is reported to expend \$100,000 for improvements to include erection of 10-stall addition to roundhouse, enlargement of shops and doubling capacity of yards.

ROAD AND STREET WORK

Ala., Sheffield.—City Commrs. contemplate paving downtown business streets.

Ark., Ashdown.—Little River County Commissioners have plans by State Highway Com., Little Rock, for road from Ashdown to Wilton; 12 mi.; cost \$73,890.13.

Ark., Lake City.—Craghead County Commissioners, Lake City, Nettleton and Bay Road Improvement Dist. No. 1 are having plans prepared for 25 mi. broken stone roads by Klyce & Kackley, 505 Fourth and First National Bank Bldg., Nashville, Tenn., and 215 Townley Bldg., Miami, Fla.; date for construction bids not set.

Ark., Little Rock.—State Highway Com. completed plans for road construction in District Nos. 1 and 2 of North Arkansas Highway; District No. 1 includes road from Little Rock to Batesville, 140 mi., and District No. 2, road from Batesville to Mammoth Spring, 80 mi.; total 220 mi.; Hugh M. Carter, State Highway Engr.

Fla., Arcadia.—De Soto County votes March 7 on \$230,000 bonds for road improvements. Address County Commrs. (Lately noted.)

Fla., Bradentown.—Manatee County will construct 17,800 sq. yds. penetration main surface on Fruitville Road adjoining Sarasota; Wm. M. Taylor, County Clerk, receives bids until March 14; M. O. Kinton, Chmn. County Commrs. (See Machinery Wanted—Road Construction.)

Fla., Fort Pierce.—City, W. R. Jackson, City Clerk, will pave streets; \$10,000 available; Miller Hallows, Engr. (Warrants for \$10,000 lately noted issued.)

Fla., Miami Beach.—City will pave 1st St., from Ocean Drive to Collins Ave.; width 18 ft.; depth 1 ft.; bids opened Feb. 5; J. F. Canova, City Clerk.

Ga., Atlanta.—City will repave North Ave. from Marietta to Williams St.; invites bids until Feb. 18; consider asphalt, bitulithic, vibrolithic, vitrified brick, crossotred wood block and concrete; W. E. Chambers, Purchasing Agent. (See Machinery Wanted—Paving.)

Ga., Augusta.—War Department, Washington, D. C., will construct street paving, including \$150,000, in Camp Haticock.

Ga., Augusta.—City will pave sections of Walton Way, Central and Railroad Ave. and 15th St.; contemplates 8 mi. of paving; estimated to cost \$300,000; invites bids. Nisbet Wingfield, City Engr.

Ga., Decatur.—City will construct sheet cement sidewalks and concrete and grading curbing during 1918; bids until Feb. 15; W. H. Weaver, Supt. Construction. (See Machinery Wanted—Paving.)

Ky., Jenkins.—City will improve 2 block streets; will let contracts. Address The Mayor.

Md., Baltimore.—City will grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 47 and 48; bids until Feb. 20; R. M. Cooksey, Highway Engr. (See Machinery Wanted—Paving.)

Miss., Lexington.—Holmes County, Fifth Road District, will construct Tchula-Cruger Highway; Highway Commrs. receive bids until Feb. 28; G. R. Boddie, Resident Engr., Tchula, Miss.; C. A. Pitchford, Commr., Cruger, Miss. (See Machinery Wanted—Road Construction.)

Mo., Fredericktown.—Madison County is reported to vote Feb. 19 on \$600,000 bonds to construct roads. Address County Commrs.

Mo., Jefferson City.—Cole County contract (lately noted let to Pope Construction Co., Jefferson City, and L. Brunner) comprises building of small culverts and graveling road surfaces on 6 small stretches of road; \$20,000 available; E. F. C. Harding, County Engr.

N. C., Charlotte.—War Department, Washington, D. C., let contract Porter & Boyd of Charlotte to construct 3 or 4 mi. of concrete roads and 30 to 40 mi. of sewers; cost about \$500,000; Major-Gen. J. T. Dickman, Commander of Camp Greene. (Lately noted.)

N. C., Charlotte.—City Commrs. and Township Road Committee (Thos. Griffith, Chmn. Township Trustees) will construct roads between Charlotte and Camp Greene; widening Tuckasee Road from 12 ft. to 18 ft. with macadam base and concrete asphaltic surface, or widen to 18 ft. with concrete shoulders; also improve Dowd Road.

N. C., Spray.—E. E. Emerson will construct 1500 yds. cement sidewalks on the Highland; no grading; invites bids. (See Machinery Wanted—Paving.)

S. C., Columbia.—City let contract R. M. Hudson Co., Empire Bldg., Atlanta, Ga., to construct 1.5 mi. asphalt paving at Camp Jackson; cost \$40,000.

Tenn., Columbia.—City, E. E. Erwin, Recorder, asks bids until Feb. 15 to construct 26,000 sq. yds. asphaltic concrete paving on macadam foundations; 450 lin. ft. curb and gutter. (See Machinery Wanted—Paving.)

Tenn., Dayton.—City will issue bonds to pave Market St. Address The Mayor.

Tenn., Ballinger.—Runnels County Commrs. will order election to vote on \$150,000 bonds to construct roads.

Tenn., Childress.—Childress County voted \$35,000 bonds to construct roads; State appropriated \$25,000 to be expended on Colorado to Gulf and Childress-Canadian Highways. Address County Commrs.

Tenn., El Paso.—El Paso County Commrs. let contract El Paso Bitulithic Co., El Paso, to repair, reconstruct and resurface El Paso-Ysleta Road; 9 mi.; width 24 ft.; concrete shoulders 4 ft. wide on each side; bituminous surface; cost \$180,000; L. A. White, County Engr. (Lately noted inviting bids.)

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County Clerk
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l. Commr.
Wanted—

Tex., Franklin.—Robertson County, East-
ern Precinct, voted \$50,000 bonds to im-
prove roads. Address County Commrs.

Tex., Galveston.—Galveston County Com-
missioners let contract Sam Fridner of Gal-
veston at \$20.74 to improve 5½ mi. of High-
way No. 2 from Galveston city limits to
Texas City Junction; 3-in. mudshell base;
asphalt surface; trap-rock topping over as-
phalt; R. M. Sias, County Engr.

Tex., Galveston.—City let contract J. C.
Kelo of Galveston at \$9581 to pave 29th St.,
from Avenue B to Avenue D with vitrified
brick on 4-in. concrete base.

Tex., Galveston.—Galveston County will
improve seawall boulevard from 22d to 24th
Sts.; John M. Murch, County Auditor, re-
ceives bids until Feb. 18. (See Machinery
Wanted—Road Construction.)

Tex., Gonzales.—Gonzales County, Road
District No. 3, voted \$60,000 bonds to con-
struct roads. Address County Commrs.
(Lately noted to vote.)

Tex., Lockhart.—Caldwell County, Road
District No. 6, J. T. Ellis, County Judge,
will issue \$35,000 bonds for road construction.
(Previously noted.)

Tex., Lockhart.—Caldwell County, Road
District No. 3, J. T. Ellis, County Judge,
will issue \$15,000 bonds for road construc-
tion. (Previously noted.)

Tex., Waco.—City will resurface Franklin
St. from South Eighth to South Eleventh
Sts.; 7000 sq. yds.; finished concrete pave-
ment, concrete pavement with asphalt sur-
face treatment, bitulithic or Uvalde rock
asphalt; bids opened Feb. 7; J. P. Stampf,
Street Commr.

W. Va., Huntington.—City will grade, curb
and pave with vitrified brick 27th St., from
Collis to Riverside Ave.; City Commrs. re-
ceive bids until Feb. 20; A. B. Maupin, City
Engr.; O. H. Wells, Commr. of Streets,
Sewers, etc.; date of opening bids post-
poned from Jan. 28; lately noted. (See Ma-
chinery Wanted—Paving.)

W. Va., Weston.—Lewis County Commrs.
will expend \$100,000 to improve roads, in-
cluding main highways from Weston to Clarks-
burg, Buckhannon, Glenville and Richwood.

SEWER CONSTRUCTION

Ark., Marvell.—City Commrs. contract,
Sewerage Improvement District No. 1 (noted
let in January to U. S. Sanitary Septic Tank
Co., 1212 Cotton Exchange Bldg., Memphis,
Tenn.), calls for 2 disposal plants; 10, 8 and
6-in. pipe.

Ark., Texarkana.—Cities of Texarkana,
Ark. and Texarkana, Tex., opened bids to
construct sewage-disposal plant; Ralph Tay-
lor is lowest bidder at \$127,937.51; T. L.
Peden, Consit. Engr., 2304 Chartres St.,
Houston, Tex. (Lately noted inviting bids.)

Fla., Tampa.—City let contract Mabry &
Owens of Tampa to construct concrete drain
over Spanishtown Creek along Platt St.,
between Newport and Delaware Aves. and on
Brevard Ave.; 7x10 sewer; cost \$11,500; R.
D. Martin, Engr.

Md., Hagerstown.—City opened bids to con-
struct sewers and disposal plant, Contract
No. 4; B. Pizzimenti, Pittman, N. J., is
lowest bidder at \$146,934. (Lately noted in-
viting bids.)

N. C., Charlotte.—War Dept., Washington,
D. C., let contract Porter & Boyd of Char-
lotte to construct 30 to 40 mi. of sewers and
3 or 4 mi. of concrete roads; cost about \$500,-
000; Maj.-Gen. Dickman, commander of Camp
Greene. (Lately noted.)

Okla., Ardmore.—City, W. R. Roberts,
Mayor, postponed for 60 days vote on bonds
for storm and sanitary sewers. (Lately
noted to vote Feb. 7 on \$100,000 bonds.)

Okla., Ardmore.—Ardmore Investment Co.
will construct 6000-ft. private sewer to con-
nect with city sewer; invites bids; J. A.
Greene, Engr., Ardmore. (See Machinery
Wanted—Sewer Construction.)

Okla., Okemah.—City contemplates voting
on bonds to improve sewer system, water-
works and electric-light plant. Address
The Mayor.

Okla., Tulsa.—City let contract C. Pleasant
lona Bldg., Tulsa, at \$19,215 to construct
sewer in District No. 120.

S. C., Spartanburg.—City will construct
sewers; day labor; cost \$40,000; R. Tull, City
Engr.

Tex., El Paso.—City voted \$45,000 bonds to
construct sewer system. Address The Mayor.
(Lately noted to vote.)

Tex., Navasota.—City will construct sani-
tary sewer system and disposal plant; bids
opened Feb. 7; M. L. Lewis, Mayor; J. P.
Markham, City Engr.

SHIPBUILDING PLANTS

Fla., Carrabelle.—Ships.—Dempsey-Camp
Shipbuilding Co. chartered with \$150,000 cap-
ital; Jno. J. Dempsey, Pres., Philadelphia,
Pa.; P. R. Camp, V.-P.; Burton J. Ray,
Secy.-Treas.; both of Carrabelle.

Ga., Port Wentworth.—Dry Dock.—War De-
partment, Washington, D. C., will build
dry dock to provide berth space for ships
of 10,000 tons burden; cost estimated at
\$2,500,000 to \$6,000,000; undecided whether to
build all steel, all wood or composite struc-
ture of wood and steel; accompanying facili-
ties to include general repair shops; dock
site reported as Onslow Island near Terry
shipyards; let construction contract to Brit-
tain & Terry of Terry Shipbuilding Co., Port
Wentworth.

Ga., Savannah.—Mine Sweepers.—The
Foundation Co., Woolworth Bldg., New
York, will build plant for constructing
mine sweepers; purchased land (at more
than \$150,000) for shipyard site; frontage
of 2700 ft. on Savannah River; plant to
employ 2000 men; has contract to build 30
large mine sweepers for French Govern-
ment.

Ga., Savannah.—Concrete Ships.—J. L. Wel-
ler, Engr., 2116 Bull St., plans to establish
shipyards for constructing concrete vessels;
wires Manufacturers Record: Hope to ar-
range for building 3000-ton test ship of re-
inforced concrete; have probably some 600-ton
lighterage barges, but have made no definite
arrangements as yet.

Ga., Savannah.—Wooden Ships.—National
Ship Building & Dry Dock Co. organized;
R. S. Salas, Pres.; H. Hodgson, Secy.-
Treas.; Frank H. Meader, Gen. Supt.; has
466-acre site, with 8000-ft. waterfront, on
Hutchinson Island; expended \$55,000 for im-
provements; completed set of ways and
building second set; establish plant to con-
struct wooden hulls and barges; has \$3,000,000
Government contract for building 12 steam-
ers and barges. (Previously noted inceptd.
with \$300,000 capital and lately mentioned
purchasing Hutchinson Island site, to build
plant, etc.)

Tex., Beaumont.—Steel and Wooden Ships.—
Beaumont Shipbuilding & Drydock Co., C.
P. Yeakum, V.-P. and Gen. Mgr., will expend
\$1,000,000 for additional facilities as follows:
\$500,000 drydock; \$200,000 slips and equipment
for drydock; \$300,000 ship-fitting plant. Build
this drydock in sections; original section
with lifting capacity 8000 tons, to be in-
creased to 14,000; for both Government and
private shipping interests; dredge 700x170-
ft. slip 40 ft. deep; construct machine shops,
1500 ft. wharf, sail lofts, warehouses, stor-
age-yards, etc.; 500 carloads machinery re-
quired for installation in ships at shipfitting
plant; machinery equipment to include
traveling derricks; company's plant site is
71-acre island, now half occupied; new facili-
ties to occupy remaining half; has 1½
mi. water-front; install boilers, engines,
general machinery, etc., for 30 Government
wooden hulls now being constructed at Bea-
umont, Orange, Houston, Corpus Christi and
other ports on Gulf Coast, west of Missis-
sippi River; float these ships to Beaumont for
completion; this shipfitting work in two
Government contracts approximating \$10,000,-
000.

TELEPHONE SYSTEMS

Tenn., Hickman.—Hickman Telephone Co.
increased capital from \$1500 to \$2000.

Okla., Cabaiss.—Robinson Telephone Co.,
capital \$5000, inceptd. by J. M. Robinson,
J. C. Robinson and H. C. Robinson.

Tex., San Benito.—Cameron County Tele-
phone Co., capital \$15,000, inceptd. by John T.
Lomax, W. D. Carpenter and Sam Spears.

Va., Tazewell.—Bluefield-Tazewell Tele-
phone Co. increased capital from \$250,000 to
\$300,000.

W. Va., Welch.—Southwest Telephone Co.
will construct 75 mi. telephone lines.
(Lately noted inceptd., capital \$25,000.)

TEXTILE MILLS

Ga., Carrollton.—Cotton Yarn.—Mandeville
Mills will install 4 frame type electric
motors of 450 H. P.

Ga., Pelham.—Cotton Duck.—Pelham Cotton
Mills will add 116 new looms and 6 new
cards; purchased this equipment.

Md., Oella.—Woolen Cloth.—Oella Mills de-
termined details for rebuilding plant;
equipment to include 84 broad looms, 19
sets cards, 5 pickers, etc. (Lately noted to
rebuild burned \$500,000 plant.)

N. C., Charlotte.—Hosley Yarn.—Belbro
Mills organized; W. H. Belk, Pres.; Geo.
H. Brockenbrough, Jr., V.-P. and Mgr.;
Geo. H. Brockenbrough, Sr., Treas.; has

building; install 4000 spindles, electric-power
drive, etc., to spin hosiery yarn. (Lately
noted inceptd. with \$125,000 capital.)

N. C., Gastonia.—Hosiery Yarn.—Myrtle
Mills chartered with \$500,000 authorized cap-
ital by J. Lander Gray (Pres.), J. L. Robin-
son, J. H. Separk and others; establish 10,000
to 15,000 spindle yarn mill.

N. C., Gastonia.—Cotton Products.—Gray
Manufacturing Co. will add 5000 spindles;
purchased this new equipment.

N. C., Gastonia.—Cotton Products.—Park-
dale Mills will add 5000 spindles; purchased
this new equipment.

N. C., Graham.—Knit Tubing.—White Cot-
ton Mills organized by W. E. White and R.
B. Tate; manufacture knit tubing.

N. C., Pineville.—Cotton Products.—Chad-
wick-Hoskins Co., Charlotte, N. C., will build
extension; install (ordered) 10 cards, 2 draw-
ings and picker.

Okla., Guthrie.—Cotton Duck, etc.—Pioneer
Cotton Mills advise Manufacturers Record:
Purchased 80 automatic looms with cloth-
room machinery, etc., to weave 10 to 12-ounce
cotton duck; first installation of looms;
\$60,000 cost of new machinery and building
addition; equipment purchased through John
Hill, Engr., Atlanta, Ga. (Lately noted to
build addition, add looms, etc.)

S. C., Anderson.—Hosiery.—Anderson Hos-
iery Mills, C. Gadsden Sayre (Archit.), V.-
P. and Secy., has final plans for mill; erect
(by day labor) 84x50-ft. 2-story mill-construc-
tion building, costing \$10,000; install 20 knit-
ting machines, electric motors, etc., costing
\$15,000; all ordered; daily capacity 240 dozen
pairs half hose; will have floor space to add
equipment increasing daily output to 1000
dozen pairs; install bleaching, dyeing and
finishing machinery. (Lately noted organ-
ized, etc.)

S. C., Ninety Six.—Cotton Goods.—Ninety
Six Cotton Mill increased capital from \$200,-
000 to \$400,000.

Tex., Hillsboro.—Cotton Goods.—Hillsboro
Cotton Mfg. Co. let contract D. M. Stowe
to erect 1-story addition to weaveroom, 2-
story addition to main building and opening
and supply building; install machinery to
double capacity.

Tex., Houston.—Absorbent Cotton.—Texas
Textile Co., B. N. Garrett, Pres., let con-
tract to Woodruff & Chambers, Beatty Bldg.,
Houston, at \$15,367.50 to erect 1-story 200x60-
ft. reinforced concrete and hollow-tile con-
struction building; will equip for daily
capacity 2000 lbs. absorbent cotton. (Pre-
viously noted inceptd. with \$250,000 capital,
lately as inviting bids on mill building, etc.)

WATER-WORKS

Ark., Marvell.—City Commrs. contract,
Water Improvement District No. 1 (in Janu-
ary, noted let to U. S. Sanitary Septic Tank
Co., 1212 Cotton Exchange Bldg., Memphis,
Tenn.), calls for tower and tank; deep well
pump; well; 6 and 4-in. cast-iron pipe.

Fla., Bonifay.—City purchased water and
electric-light plant; expend \$21,000 on im-
provements; capacity 100 G. P. M.; erect gal-
vanized-iron 49x30-ft. building; install oil en-
gine, triplex pump and alternating gener-
ator; opened machinery bids. (G. B. McCrary
Co., Atlanta, Ga., lately noted as Contr. and
Engr.)

Fla., Orlando.—City is having plans pre-
pared by J. B. McCrary Co., Engr., Third
National Bank Bldg., Atlanta, Ga., for water
system; daily capacity 3,000,000 gals.; cost
\$600,000.

Ga., Jeffersonville.—City, J. G. Rockmore,
Mayor, will vote Mch. 28 on \$900 bonds for
water-works.

Ga., Ty Ty.—City votes March 8 on \$2500
bonds to extend water-works system and
build reservoir. R. R. Pickett, Mayor.

La., Homer.—City will drill additional well
to double water supply; W. A. McKinzie,
Supt. Water and Light Plant.

Miss., Meridian.—City votes March 12 on
\$100,000 bonds to purchase land on water
shed and improve water-works. J. M. Dab-
ney, Mayor. (Lately noted contemplating
vote.)

Okla., Okemah.—City contemplates voting
on bonds to improve water-works, electric-
light plant and sewer system. Address
The Mayor.

Okla., Enid.—City contemplates laying 4
and 6-in. cast-iron water mains; cost \$30,000;
B. F. Lewis, City Engr.

Okla., Ponca City.—City will issue \$20,000
bonds to improve water-works. Address The
Mayor.

Okla., Sulphur.—City voted on \$25,000 bonds
to construct water-works. Address The
Mayor.

Okla., Sulphur.—City voted \$25,000 bonds to
improve water works; plans provide for
water supply, storage dam and improvement
of pumping station. Address The Mayor.

Okla., Wewoka.—City is having plans pre-
pared by Benham Engineering Co., 1300 Col-
cord Bldg., Oklahoma City, to improve
water system; cost \$75,000.

Tex., Cleburne.—City contemplates con-
structing storage reservoir on Lem Creek;
cost \$230,000; J. Buckner, City Engr.

Tex., Fort Worth.—City let contract Pitts-
burgh Filter Mfg. Co., Pittsburgh, Pa., at
\$67,300 for improvements at filtration plant
to include building of basins, extension of
buildings and installation of pipe galleries;
within next 10 days will invite bids on sedi-
mentation basins and chemical-house; John
H. Gregory, Consit. and Designing Engr., 170
Broadway, New York; J. C. Lord, Commr.
of Water-works. (Lately noted inviting bids
on 4 additional rapid sand filters, each with
capacity of 1,250,000 gals. per 24 hours, 2
wash-water waste detention tanks, extension
of filter gallery building, laying pipes, sewers,
conduits, etc.)

Tex., Henrietta.—City let contract J. N.
Gurley of Denton, Tex., at \$5000, to construct
48x76-ft. reinforced concrete dam with 36-
ft. apron, across Little Wichita River to
furnish water supply; dam will impound
150,000,000 gals. water; water to be backed
up for 5 mi.

Tex., Henrietta.—City let contract J. N.
Gurley of Denton, Tex., at \$5000, to construct
104-ft. reinforced concrete dam across Little
Wichita River to furnish water supply; dam
will impound 150,000,000 gals. water; water
to be backed up for 5 mi.

Tex., San Benito.—Commonwealth Water
& Electric Co., capital \$50,000, inceptd. by John
T. Lomax, W. D. Carpenter and Sam Spears.

WOODWORKING PLANTS

Ala., Abbeville.—Shingles.—Brannon &
Yearby Shingle Co., capital \$6000, inceptd. by
J. S. Brannon, L. M. Yerby and J. J. Espy.

Ala., Birmingham.—Beds, etc.—Birmingham
Bed & Veneer Works will erect frame build-
ing; cost \$5500.

Ala., Tuscaloosa.—Cooperage.—Tuscaloosa
Cooperage Co., capital \$30,000, organized;
build cooperage plant.

Ark., Blytheville.—Coffins.—J. C. Cobb
Coffin Co., capital \$10,000, inceptd. by J. C.
Cobb, W. H. Hollipeter, Clyde Robinson and
others.

Fla., Dade City.—Veneer, etc.—Dade City
Veneer, Lath & Crate Mfg. Co., capital
\$25,000, inceptd. to manufacture veneer, laths,
scale boards, crates, etc.; N. Ruth, Pres.;
O. L. Dayton, Secy.-Treas.; both of Dade
City; F. D. Cosner, V.-P., Gassaway, W. Va.

Ga., La Grange.—Sash and Doors, etc.—La
Grange Lumber & Supply Co., capital \$75,000,
organized by West Point (Ga.) Iron Works,
which acquired plant of Pike Bros. Lumber
Co.; manufacture sash and doors, mill sup-
plies, etc. (See Lumber Manufacturing.)

Ga., Macon.—Excelsior.—Macon Fuel & Sup-
ply Co., Sixth and Ocmulgee Sts., contem-
plices installation equipment to manufac-
ture excelsior; has power plant. (See Ma-
chinery Wanted—Excelsior Machines.)

Miss., Vicksburg.—Veneer.—Acme Veneer-
ing Co. will build veneer plant.

Mo., Kansas City.—Cooperage.—Kansas City
Bolt & Nut Co. will rebuild cooper shop re-
ported burned.

Mo., St. Louis.—Store and Office Fixtures.—
Globe Store & Office Fixture Co., capital
\$3000, inceptd. by Nathan Bloom, Max Rosen
and Louis Toffe.

Tex., Fort Worth.—Cooperage.—Southwest-
ern Cooperage Co. increased capital from
\$20,000 to \$30,000.

Va., Richmond.—Cooperage.—Export Leaf
Tobacco Co. will erect addition to plant, at
Lombardy and Marshall Sts., for cooper
shop; 54x104 ft.; concrete floors; sprinkler
system; cost \$4500; C. H. Hilgartner, Archt.;
E. L. Bass & Bro., Contrs.; both of Rich-
mond.

Va., West Point.—Veneer.—H. W. Rountree
& Bro., Richmond, Va., acquired York Mfg.
Co.'s plant; will install new machinery for
veneer mill; make single-ply and built-up
panels; H. L. Baldwin, Supvr. West Point.

FIRE DAMAGE

Ala., Albertville.—H. J. Morgan's cotton
gin; loss \$10,000.

Ala., Ashland.—Greisemer Graphite Co.'s
mining plant, 5 mi. from Ashland; estimated
loss \$200,000.

Ala., Athens.—Manse occupied by Rev. H.
L. Walker, near Rowland and Nebo Church.

Ala., Birmingham.—Union Cotton Oil Co.'s peanut mill and warehouse at Fifth Ave. and 47th St.; loss \$75,000.

Ala., Fort Payne.—De Kalb Hotel; loss about \$60,000.

Ala., Gadsden.—Queen City Garage on North Eleventh St.; building was owned by H. M. Johnson; total loss \$3000.

Ala., Montgomery.—Windsor Hotel; estimated loss \$175,000.

Ark., Hamburg.—J. L. Durham's residence; loss \$6000.

Ark., Jonesboro.—Max Meyer's store; loss \$15,000.

Ark., Rogers.—Mutual Aid Union Bldg., loss \$5000; Press Publishing Co.'s plant, loss \$1000.

Ark., Warren.—Main building of Walker Institute; loss \$10,000; Jas. W. Eichelberger, Principal.

Fla., Leesburg.—W. C. Richardson's residence on 9th St.

Fla., Miami.—Kress & Co.'s store and several buildings; estimated loss \$75,000.

Fla., West Palm Beach.—Olympic Theater.

Ky., Ashland.—Ashland Leather Co.'s tannery; loss \$50,000.

Ky., Corbin.—Residences of Leslie Lanham, Dr. J. H. Parker and James Downing; loss \$15,000.

Ky., Glenn Springs.—Three main buildings at Baptist Mission School; loss \$100,000.

Ky., Louisville.—Fred. Lang's garage at 112 Keats Ave.; loss \$1000.

Ky., Murray.—J. H. Churchill's residence and undertaking establishment; Baker & Glasgow's building.

Ky., Proctor.—Harry Tipton's residence, near Proctor; loss \$25,000.

Ky., Whitesburg.—Felix G. Field's building, occupied by Swisher Furniture Store and Eagle Bottling Co.'s plant; loss \$10,000.

Ky., Winchester.—J. H. Day's residence on Mt. Sterling pike.

La., Hammond.—C. D. Montgomery's residence.

La., Port Allen.—Harry Cohn, Jr.'s cooperage warehouse; loss \$8000.

La., Tullulah.—J. D. Snyder's residence.

Md., Aberdeen.—W. N. Adams & Son's meat store, loss \$5000; Henry P. Tarring & Son's building, loss \$40,000 to \$50,000; S. L. Fyle's store, loss \$1000; H. O. Ivins' store, loss \$3000; William Silver & Co.'s store, loss \$10,000; postoffice building, loss \$15,000; Hanway & Gibson's store, loss \$16,000.

Md., Annapolis.—Parlett & Parlett Co.'s branch ice factory at Water and Dock Sts.; loss \$35,000.

Md., Colgate.—Jas. F. Lambert's residence; loss \$5000.

Md., Lansdowne.—St. Clement's Catholic rectory, Rev. J. L. Sullivan, pastor; loss about \$4000.

Miss., Gulfport.—P. S. Martin's residence.

Mo., Caruthersville.—W. J. Sawyer's residence, 410 Highland Ave.; loss \$3000.

Mo., Kansas City.—Kansas City Bolt & Nut Co.'s cooper shop, store and restaurant; loss \$9000.

Mo., Kansas City.—Nuss & Moore Trunk Co.'s factory at 1408-10 Walnut St., estimated loss on building, \$35,000 and \$20,000 on contents; Missouri Bldg. at 1021-23 Grand Ave., owned by Ernest Shukert, loss \$50,000; Midwest Chemical Products Co. at 829 Southwest Boulevard, loss \$1000 on building and contents, respectively; Y. W. C. A. Bldg., loss \$2000.

Mo., Maryville.—Townsend Grocery Co.'s store; Murphy Clothing Co.'s store; J. C. Kessler Hardware Co.'s building; Lincoln Five and Ten Cent Store; Holmes Jewelry Co.'s building; Olear Henry Drug Co.'s store; Dietz & Keck's building; Eversole Dry Goods Co.'s building; Masonic Hall; total loss \$100,000.

Md., North East.—Charles Biddle's warehouse; loss \$3500.

N. C., Charlotte.—Mrs. C. L. Hunter's residence in Myers Park; loss \$12,000.

N. C., Gastonia.—A. B. Rhyne's roller-mill; loss \$10,000.

N. C., Greenville.—Hooker & Anthony Grocery Co.'s store; building owned by T. M. Hooker; loss about \$30,000.

Okla., Durant.—Avenue Hotel, leased to N. C. Moore; loss on building \$6000 to \$7000.

Okla., Guthrie.—Store building of S. H. Kress & Co., 350 Broadway, New York; loss \$50,000.

Okla., Glenn.—J. S. Alverson's residence.

Okla., Kingston.—Kingston Ice & Light Co.'s power plant; loss \$25,000; Geo. Biethen, Plant Mgr.

Okla., McAlester.—Crutcher Motor Co.'s machine shop; loss \$1200.

Okla., Oklahoma City.—Nunn Electric Co.'s building; loss \$10,000.

Okla., Oklahoma City.—Riverside Inn, owned by Jack Stanley; loss \$3500.

Okla., Watonga.—Watonga Grain & Elevator Co.'s plant.

S. C., Charleston.—F. W. Wagener & Co.'s coffee-roasting warehouse; loss \$20,000 to \$25,000.

S. C., Kingstree.—Stores of Venters Mercantile Co., S. J. Cannon, L. A. Taylor, Walter Poston; C. C. Richardson's office; loss \$30,000.

Tenn., Chattanooga.—Miller-Mitchell Dry Goods Co.'s store; loss \$25,000; Palace Confectionery; Knox Furniture Co.'s building.

Tenn., Columbia.—T. E. Lipscomb's residence.

Tex., Austin.—Austin Presbyterian Sanitarium; loss \$25,000.

Tex., Bowie.—Texas Light & Power Co.'s electric-light and power plant; loss \$8000.

Tex., Dallas.—W. T. Smith's residence, 5314 Parry Ave.; loss \$2500.

Tex., Dallas.—E. E. Mercher's residence; loss \$3000.

Tex., Eagle Pass.—R. F. Vaughan's dwelling; loss \$10,000.

Tex., Fort Worth.—W. A. Douglas's residence; loss \$2000.

Tex., Houston.—E. H. Casey's moving-picture theater; White Front Restaurant.

Tex., Mingus.—Interstate Hotel; loss \$8000.

Tex., Polytechnic.—W. R. Wilson's residence; loss \$5000.

Tex., Morgan Hill.—Morgan Hill school; loss \$3000. Address School Trustees.

Tex., Temple.—J. C. Lindner's dwelling; loss \$3000.

Tex., Waco.—R. L. Allen's residence; loss \$5000.

Va., Boykins.—R. H. Powell's residence; several stores and barber shop; loss \$5000.

Va., Cape Charles.—Warehouse at Cherry Stone Island Naval Base, near Cape Charles.

Va., Houston.—E. S. Lacy's residence; loss \$10,000.

Va., Lexington.—David C. Humphrey's dwelling on Jackson Ave.; loss \$10,000.

Va., Newport News.—T. A. Fowler's residence; loss \$10,000.

Va., Staunton.—Angusta Hotel; Virginia Hotel; Country Club.

W. Va., Clothier.—Haddad Bros.' store; Boone County Coal Corporation's building; loss \$15,000.

W. Va., Hinton.—New River Hardware Co.'s store; Swift & Co.'s building (under construction); dwelling of R. R. Flanagan, Huntington, W. Va.; loss \$125,000.

W. Va., Kyle.—Dwelling owned by Lynchburg Coal & Coke Co.

W. Va., Newell.—Kenilworth Tile Co.'s plant; loss \$35,000.

W. Va., Raywood.—Warn Lumber Co.'s store and office building.

W. Va., Charleston.—R. L. Brown's dwelling; loss \$2000.

W. Va., Spencer.—Times-Record Publishing Co.'s printing plant; C. F. Simmonds, Editor.

W. Va., Wheeling.—Barn and 50 street cars of Wheeling Traction Co. on Wheeling Island, controlled by West Penn Traction Co., Pittsburgh, Pa.; estimated loss \$200,000.

Charlottesville, Va.; John F. Barbour & Sons, D. J. Phipps, E. M. Herrington, A. L. Marshall; all of Roanoke; plans by G. R. Ragan, Roanoke, call for 7-story structure; 60x90 ft.; brick, granite, iron and cement construction; asbestos roof; wood and tile floors; steam heat; electric lights; prism sidewalk lights; cost \$90,000. (Previously noted.)

W. Va., Raywood.—Warn Lumber Corp. will erect store and office building to replace structure lately noted damaged by fire; 26x104 ft.; wood; composition roof; wood floors; hot-water heat; electric lights; construction begun. (See Machinery Wanted—Fixtures; Store and Office; Furniture.)

CHURCHES

D. C., Washington.—Columbia Heights Christian Church, 810 F St. N. W., will soon call for bids to erect proposed structure; 1 story; 80x92 ft.; brick; slate roof; yellow pine floors; cost about \$70,000; lighting, \$400; M. R. Rhoads, Archt., 518 Broad St., Chambersburg, Pa. Address J. H. Bangs, 325 Columbia Road, Washington.

Ga., Atlanta.—Jackson Hill Baptist Church, Dr. J. J. Bennett, Pastor, has plans by Francis P. Smith for building + replace structure previously noted burned. (Lately noted.)

Ky., Jackshorn.—Elkhorn By-Product Coal Co. will erect church and school buildings at Parsons. (See Schools.)

Ky., Iee.—Carbon Hill Collieries Co. is considering erecting church building. (See Dwellings.)

Ky., Louisville.—Adath Jeshurun Congregation, Brook and College Aves., will soon let contract to erect building; 1 story; 50x75 ft.; cost about \$50,000; J. J. Gaffney, Archt., Louisville. (Lately noted under Ky., Paintsville.)

Ky., Mayking.—Ed Dye and others are interested in erection of church building; contract let within two weeks.

La., Gretna.—Marreo-Harvey Catholic Church will erect building; cost several thousand dollars. Address The Pastor.

Okla., Hobart.—Christian Church will erect building. Address The Pastor.

Okla., Jenks.—Baptist Church, Rev. J. F. Gardiner, Pastor, will erect building.

Tex., Abilene.—Christian congregation is reported to erect administration building; cost \$20,000. Address The Pastor.

Tex., Dallas.—First M. E. Church South indefinitely postponed erection of \$300,000 building; fireproof construction; tile roof; reinforced concrete floors; steam heat; electric wiring; Herbert M. Greene Co., Archt., Dallas. (Previously noted.)

Tex., Honey Grove.—Methodist Church will erect building to replace burned structure. Address The Pastor.

Tex., Palestine.—Congregational Church is receiving bids to erect proposed building. Address The Pastor.

Va., Norton.—Baptist Church will erect building; stone and brick. Address The Pastor.

Va., Richmond.—Church of the Holy Comforter, Rev. W. E. Cox, Rector, plans to erect building.

CITY AND COUNTY

Ala., Birmingham.—Park.—City Commission, N. A. Barrett, Pres., will erect several buildings and repair others at East Lake Park.

Ark., Harrison.—County Home.—Boone County, N. A. Freeling, Judge, did not let contract Feb. 2 for erection of County Home for Poor, all bids exceeding appropriation; 125x28 ft.; brick; slate roof; wood floors; Honeywell or Continental Vacuum heating system; will ask court for additional appropriation. (Lately noted.)

Ark., Texarkana.—Jail.—City will erect 25 ft. addition to jail building. Address The Mayor.

Fla., Miami.—Armory.—City will erect armory for Dade County Guards; 100x200 ft.; contain storerooms; also offices for battalion commanders; Capt. T. Sanders, Commander, Company B.

Fla., Seabreeze.—Library.—City contemplates erecting library building to include assembly hall and restroom. Address The Mayor.

Fla., Tampa.—Comfort Building.—Board of Comms. of Public Works will construct comfort building in Plant Park; bids opened Feb. 5; A. Bashford, Building Inspector.

La., Monroe.—Warehouse.—City will erect freight warehouse in connection with river terminals. (See Miscellaneous Construction.)

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Florence.—J. Fred. Johnson will erect 9-room apartment-house.

D. C., Washington.—Harry Wardman, 1430 K St. N. W., will build apartment-house at Woodley Road and Connecticut Ave. N. W.; cost \$450,000.

Ga., Atlanta.—Mrs. D. I. Carson will erect apartment-house at 498 N. Boulevard; cost \$6966.

Ga., Atlanta.—J. S. and C. R. Collins will erect 2 apartment-houses on Alexander St.; cost \$40,000 each; also erect 2-story brick dwelling, 640 Ponce de Leon Ave.; 9 rooms; cost \$10,500.

Md., Baltimore.—Monument Place Apartment Co. has plans by E. H. Glidden, Garrett Bldg., Baltimore, to remodel and erect 3-story addition to dwelling at 704 Cathedral St. for apartment-house; also erect 2-story garage. (Lately noted.)

Tenn., Nashville.—E. E. Daugherty and Thos. W. Gardner, Stahlman Bldg., Nashville, prepared plans, it is reported, for proposed Ansonia Apartments and hotel to be erected on Eighth Ave., North, by company being organized; 8 stories; 72 suites; cost \$250,000.

Tex., San Antonio.—A. Levysyn will erect 12-room apartment-house at 557 Elmira St.; cost \$5000.

Tex., San Antonio.—Mrs. R. C. Lehman will erect 10-room apartment-house; cost \$5000.

Tex., Waco.—H. Hutchenrider will erect duplex apartment building; cost about \$6000.

Va., Norfolk.—John A. Guirkin will erect 2 frame apartment-houses on Colonial Ave.; cost \$4000.

ASSOCIATION AND FRATERNAL

Fla., Cocoa.—Board of Directors of Masonic Temple Corp. will erect temple during summer.

Fla., Jacksonville.—Jacksonville Lodge No. 1, Fraternal Order of Mechanics, plans to erect dancing pavilion over river.

Md., Camp Meade, P. O. Baltimore.—Red Cross Society, Druid Hill Ave. and Eutaw St., Baltimore, will erect administration building; 1 story; frame; Cowan Building Co., 106 W. Madison St., and W. E. Harn Co., 213 N. Calvert St., both of Baltimore, are estimating.

Okla., Cherokee.—I. O. O. F. plans to erect lodge building.

BANK AND OFFICE

Ark., Mountain Home.—People's Bank will erect stone building.

D. C., Washington.—National City Co. will remodel banking-room S. E. cor. 15th and H sts. N. W.; cost \$3000.

N. C., Elizabeth City.—First National Bank plans to erect building; probably 6 stories; site 50x25 ft.

Okla., Ardmore.—S. A. Apple, Wirt Franklin, Edward Galt and Roy M. Johnson will erect office building; 4 stories.

Okla., Miami.—Commerce Building Co. acquired Hancock Building and will remodel for offices.

Tex., Corsicana.—Citizens' National Bank, it is reported, has plans by A. J. Overbeck for second story to building.

Okla., Shawnee.—Security State Bank will install marble fixtures and tile floors before July 1. (See Machinery Wanted—Bank Fixtures; Flooring.)

Okla., Tulsa.—First National Bank will erect bank and office building at Main and 4th Sts.; 10 stories and basement; 50x140 ft.; fireproof; steel frame; concrete floors; cost \$500,000; Rush, Endicott & Rush, Archts., Tulsa; J. R. Burnside has contract to raise 2-story structure on site.

Okla., Tulsa.—C. P. Alexander is reported to erect 7-story fireproof office building on West Main St. to replace burned Ohio Bldg.

Tex., San Angelo.—James McCord & Co., Fort Worth, will erect brick office building and warehouse; cost several thousand dollars. (See Warehouses.)

Tex., Yoakum.—Yoakum State Bank plans to enlarge building and install new fixtures.

Tex., Yoakum.—Farmers and Merchants' Bank will erect bank building.

Va., Altavista.—C. W. Lane & Co., Inc., has plans by Stanhope S. Johnson, Lynchburg, to remodel building at Sixth and Broad Sts. for banking quarters for Farmers' & Merchants' Bank; 40x100 ft.; brick; metal roof; wood floors; hot-water heat; electric lights; construction begins in about 10 days; cost \$5000 to \$6000.

W. Va., Charleston.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect office building; cost about \$80,000; bids opened Feb. 11; A. L. Parsons, Chief of Bureau.

W. Va., Mullens.—Bank of Wyoming will erect bank and hotel building; bids opened Feb. 14; contractors estimating are J. L. Crouse, Greensboro, N. C.; King Lumber Co.,

Miss. Hattiesburg—City Hall.—City contemplates erecting city hall; cost \$40,000 to \$60,000. Address The Mayor.

Okla. Hartshorne—City Hall.—City voted \$5,000 bonds to erect city hall. Address The Mayor. (Previously noted.)

Okla. Pauls Valley—Community-house, etc. City voted \$15,000 bonds to erect community-house and \$3000 bonds for improvements to fire department. Address The Mayor. (Previously noted.)

Tex. Dallas—Fire Station.—City opened bids to erect fire station at Augusta St. and Columbia Ave.; J. R. Sessums & Co., Dallas, low bidder at \$15,793; plans by H. A. Overbeck, Dallas, call for structure 40x100 ft.; brick; concrete floor; gas stoves; electric lights; concrete sidewalks; cost \$20,000. (Previously noted.)

Tex. Yoakum—City Hall.—City is considering election on bonds to erect city hall. Address The Mayor.

Va. Roanoke—Market and Assembly Hall. City will erect market and assembly hall in center Nelson St.; 80x170 ft.; 2 stories; brick; 42 stalls on first floor; terrazzo floors with cove sanitary base at all walls and counter base; refrigerators and all interior walls faced with glass bricks to height of 11 ft.; each refrigerator controlled by automatic arrangement to hold temperature practically uniform; meat stalls to have refrigerated glass counter; 22-ft. wide mezzanine floor at either end; auditorium on second floor 77x123 ft.; pavement entirely surrounding building over which there will be marquis or glass roof shed; election Feb. 12 on \$300,000 bonds to erect this building; Frey & Chesterman, Architects, Davis-Stephenson Bldg., Roanoke. (Lately noted.)

Va. Suffolk—Market.—City will repair and rearrange city market. Address The Mayor.

COURTHOUSES

La. Alexandria.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., rejected bids to extend and remodel postoffice and courthouse. (Lately noted.)

Miss. Corinth.—Alcorn County Supervisors, O. M. Hinton, Chancery Clerk, have plans by N. W. Overstreet, Majestic Bldg., Jackson, Miss., and open bids Feb. 15 to erect courthouse; 122x86 ft.; fireproof; reinforced concrete, face brick, terra-cotta, ornamental plaster, ornamental and structural iron work; composition roof; reinforced concrete floors; steam heat; cost \$80,000, without mechanical equipment; contractors estimating are: J. W. Hood, care of Capital Building Co. (P. O. Box 1038), San Antonio, Tex.; B. M. Crawford Co., Builders' Exchange; J. E. Hollingsworth & Co., 536 Scimitar Bldg.; D. D. Thomas & Son, Scimitar Bldg.; all of Memphis, Tenn.; Leake & Goodlett, Tupelo, Miss.; Inglenook Construction Co., 26 Realty Bldg., Birmingham, Ala.; King Lumber Co., Charlottesville, Va.; Sherrill-Russell Lumber Co., Paducah, Ky.; E. G. Parish, Jackson, Tenn.; W. J. McGee, Jackson, Miss.; Walker Bros., Fayette, Ala. (Lately noted.)

DWELLINGS

Ala. Birmingham.—J. D. Pearce, 1706 Fourteenth Ave., South, will erect residence in Trotwood Park to replace structure lately noted damaged by fire; 7 rooms; frame; shingle roof.

Ala. Birmingham.—C. W. Streit will erect 2 frame dwellings; cost \$24,000.

Ala. Birmingham.—Geo. W. Connors will erect residence; brick; cost \$2900.

Ark. Little Rock.—J. M. Bracey will erect 2-story brick and white tile residence.

Ark. West Memphis.—Wm. L. Johnson will erect 15 or 20 dwellings for employes Sweeney Mfg. Co.

Ark. Marianna.—R. L. Mixon will erect brick-veneer residence.

Ark. Marianna.—E. J. Matthews will erect residence.

Ark. Marianna.—F. T. Sellers will erect residence.

Ark. Marianna.—Mrs. C. L. Gill will erect residence.

Ark. Marianna.—M. H. Ford plans to erect brick residence.

Ark. Marianna.—W. L. Ward contemplates erecting 2 residences.

Ark. Marianna.—J. T. Robertson will erect residence.

Ark. Marianna.—P. Govan will erect residence.

Ark. Marianna.—J. L. Spence will erect residence.

D. C., Washington.—Fuller & Hill will erect 2 brick dwelling at 2319-21 Ashmead Pl.

D. C., Washington.—D. E. Fowler will erect frame dwelling at 5809 39th St. N. W.; cost \$7000.

D. C., Washington.—Housing and Health Division of War Department, Major Z. L. Potter in charge, 719 Fifteenth St. N. W., will expend \$5,000,000 to erect temporary dormitories to accommodate 800 and \$4,000,000 to erect permanent houses to accommodate 5700. (See Government and State.)

Fla., Bayou Bonita.—R. B. Worthington has plans by Wm. Siegel Shull, St. Petersburg, Fla., for residence and garage; former 125x35 ft., latter 27x37 ft.; hollow tile; slate roof; wood and concrete floors; hot-water heat; cost \$30,000; residence plans in progress, garage under construction. Address architect.

Fla., Kleco, via Florida.—Kissimmee Island Cattle Co., W. J. Kelly, Prest., Jacksonville, will erect commissary and 7 dwellings; latter equipped with electricity, waterworks, sewerage system, etc.

Fla., Lake Worth.—C. P. Harp will erect 2-story dwelling; 18x23 ft.

Fla., Lake Worth.—J. C. Kuebbeler will erect frame dwelling.

Fla., Miami.—Charles Rodgers will erect dwelling; cost \$2000.

Fla., Miami.—Charles Rhodes will erect \$2000 residence.

Fla., Miami.—C. H. Hyatt will erect dwelling; cost \$4000.

Fla., Miami.—A. M. Griffing will erect dwelling; cost \$6000.

Fla., Miami.—H. A. Tarr will erect residence; cost \$3100.

Fla., Miami.—Etta H. Williams will erect \$3000 residence.

Fla., Miami.—J. K. Roberts will erect dwelling; cost \$2300.

Fla., Miami.—J. W. Claussen will erect dwelling; cost \$4500.

Fla., Miami.—Mrs. W. A. Wolff will erect \$2000 residence.

Fla., Miami.—Newton B. Roney will erect dwelling; cost \$4000.

Fla., Miami.—T. Maxley will erect \$3000 dwelling.

Fla., Miami.—Ed. C. de Brauwere will erect \$2000 residence.

Fla., Miami.—Worden & Vivier will erect residence; cost \$2800.

Fla., Milton.—R. J. Allen will erect residence. (See Hotels.)

Fla., St. Augustine.—R. W. Waite, Treas. Middle West Utilities Co., Chicago, Ill., will erect residence.

Fla., Tarpon Springs.—Mrs. Florence McKinney will erect bungalow.

Fla., Vero.—W. H. Hufford will erect bungalow; 32x32 ft.

Ga., Atlanta.—R. C. Little will erect brick-veneer bungalow; 7 rooms; cost \$3800.

Ga., Atlanta.—J. O. Cochran will erect dwelling at Manigault and Witherby Sts.; 5 rooms and bath; cost \$2500.

Ga., Atlanta.—J. B. Eason will build brick-veneer residence; cost \$4000.

Ga., Atlanta.—Frank T. Pike will erect \$3750 residence.

Ga., Atlanta.—Dr. J. R. Porter will erect 2-story \$4400 residence.

Ga., Atlanta.—Ralph M. Walker will erect residence; Tudor style; 10 rooms; brick veneer; tile roof; ordinary construction; low-pressure steam heat; cost \$5000; bids opened about March 1; A. Ten Eyck Brown, Archt., Atlanta.

Ga., Atlanta.—J. S. and C. R. Collins will erect dwelling. (See Apartment-houses.)

Ga., Hawkinsville.—Geo. R. McClung, Atlanta, purchased 2370-acre farm; will erect dwelling and make other improvements.

Ky., Iee.—Carbon Hill Collieries Co. will erect 25 miners' dwelling and make extensions; also considering church and school buildings; contracts to be let at once.

Ky., Mill Stone.—Elkhorn Jr. Coal Co., Croftsville, Ky., will erect number of miners' dwellings; 3 rooms; plaster and frame; paper roof; bids opened March 1; construction begins April 1. (See Machinery Wanted—Rails, etc.)

Md., Baltimore.—C. M. Dodson, Jr., 2211 Eutaw Place, will repair dwelling lately noted damaged by fire.

Mo., St. Louis.—Jas. F. Cairns will erect dwelling; 2 stories; also garage; cost \$4400.

N. C., Charlotte.—F. Marion Redd will erect residence on South Tyron St.; cost \$10,000.

N. C., Greensboro.—Jas. F. Thompson will erect residence in Latham Addition; also remodel dwelling. Install steam-heating plant, etc.

N. C., Leaksville.—E. E. Emerson will erect residence on Highland Drive; veneered brick.

Okla., Glenn.—J. S. Alverson will erect residence to replace building noted damaged by fire.

Okla., Marietta.—R. L. Bond will erect frame residence.

Okla., Marietta.—W. L. Frensey will erect frame residence; cost about \$3000.

N. C., Pineville.—Chadwick-Hoskins Co., Charlotte, N. C., will build dwelling for J. D. Buice, Supt. No. 5 mill.

Okla., Balston.—J. Smith plans to erect farm residence; cost \$5000.

Okla., Tulsa.—Cone & McCullough will erect 17 residences on 5th and Postoria Sts.; total cost \$42,500.

Okla., Tulsa.—E. C. Gill will erect 2-story residence; cost \$5000.

Okla., Tulsa.—E. G. Cunningham will erect \$7000 residence.

Okla., Tulsa.—G. Renshaw will erect residence; cost \$2500.

Okla., Tulsa.—J. L. Mellett will erect residence; cost \$6000.

Okla., Tulsa.—T. A. Gamble will build \$2500 dwelling.

Okla., Tulsa.—O. L. Chancellor will erect residence; cost \$4500.

Tenn., Knoxville.—Mrs. A. L. Doyle will erect frame dwelling on Martin Mill Pike.

Tex., Beaumont.—A. Bliden will erect 2-story frame residence; cost \$5000.

Tex., Corsicana.—C. Weaver will remodel residence.

Tex., Cisco.—Mrs. C. A. Gray will erect residence; brick; cost several thousand dollars.

Tex., El Paso.—Mayfield Building Co. will erect brick residence; cost \$5000.

Tex., Orange.—A. F. Marshall will erect brick residence.

Tex., Orange.—A. W. Batte will erect 5-room dwelling.

Tex., San Antonio.—Federal Home Building Co. will erect ten 4-room and three 5-room dwellings on Sandmyer St.; total cost \$17,500.

Tex., San Antonio.—W. A. Baily will erect two 5-room dwellings on Peck Ave.; cost \$3750.

Tex., San Antonio.—Fred E. Sommers will erect \$2100 5-room residence.

Tex., San Antonio.—Mrs. E. F. Bailey will erect 5-room \$2000 residence.

Tex., San Antonio.—Joe Florey will build \$7500 8-room residence.

Tex., San Antonio.—H. D. Williams will erect 6-room residence; cost \$2500.

Tex., San Antonio.—Fred K. Ronge will erect 5-room residence; cost \$2300.

Tex., San Antonio.—W. E. Sorrell will erect residence; 6 rooms; cost \$2800.

Tex., Van Alstyne.—S. H. Pattie will erect brick-veneer residence; cost \$5000.

Tex., Van Alstyne.—J. C. Tipton will erect residence; cost \$5000.

Va., Norfolk.—Geo. H. Frey will erect 4 frame residences on Craig and Appomattox Sts.; cost \$2400.

Va., Norfolk.—Brinkley Bros. will erect 2-story frame residence; cost \$2500.

Va., Norfolk.—D. W. Godwin will build two 2-story frame residences; cost \$4800.

Va., Norfolk.—E. K. Wilson will erect 2-story frame residence; cost \$2200.

Va., Norfolk.—John A. Gurkin will erect 2-story frame residence; cost \$2200.

Va., Norfolk.—J. W. Jones will build 2 residences; 2-story frame residence; cost \$3600 each.

Va., Norfolk.—J. T. Sawyer will erect two 2-story frame dwellings; cost \$5000.

GOVERNMENT AND STATE

Ark., Little Rock.—Camp.—Quartermaster-General's Department, Washington, D. C., will erect following additional buildings at Camp Pike: Ten 2-story hospital ward buildings, 2 dental infirmary buildings, infirmary for Third Officers' Training School, 6 hay sheds, 2 hay sheds at remount depot, repair shop barrack building for mechanical trucks unit, warehouse, ordnance repair shop, gas instruction house and lithographers' and photographers' building; also reconstruction of 26 mess buildings; Major Kenneth P. Williams, Camp Quartermaster. (Previously noted.)

D. C., Washington.—Dormitories.—Housing and Health Division of War Department, Major Z. L. Potter in charge, 719 Fifteenth St. N. W., will expend \$5,000,000 to erect temporary dormitories to accommodate 8000, and \$4,000,000 to erect permanent houses to accommodate 5700; Congress considering \$30,000,000 appropriation for housing plans.

D. C., Washington.—Gymnasium and Storehouse.—Bureau of Yards and Docks, Navy Dept., A. L. Parsons, Acting Chief, will erect gymnasium and storehouse at Pearl Harbor; concrete foundation; hollow-tile walls, stuccoed; storehouse, reinforced concrete frame and roof beams, 40x94 ft., 12 ft. high; bids opened Feb. 11.

La., Alexandria.—Postoffice.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., rejected bids to extend and remodel postoffice and courthouse. (Lately noted.)

Miss. Hattiesburg.—Clubhouse.—War Camp Community Service Board will erect soldiers' clubhouse and auditorium; 90x130 ft.; seating capacity 2000. (Lately noted.)

Miss. West Point.—Aviation Camp.—War Dept., Washington, D. C., will establish aviation camp; let contract to W. B. Johnson, Memphis, Tenn., to bore wells.

S. C., Greenville.—Hospital.—War Department, Washington, D. C., will erect three 2-story ward buildings at base hospital, Camp Sevier. (See Hospitals.)

Tex., Waco.—Aviation Camp.—War Department, Washington, D. C., will build aviation camp at depot brigade camp at Camp MacArthur; accommodate 16,000 men.

W. Va., Charleston.—Office Building.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect office building; estimated cost \$50,000; bids opened Feb. 11; A. L. Parsons, Acting Chief of Bureau.

HOSPITALS, SANITARIUMS, ETC.

Mo., St. Louis.—O. H. Brooks, Jr., Real Estate Co., Wainwright Bldg., has plans by Barnett, Haynes & Barnett, 940 Century Bldg., St. Louis, for sanitarium; 4 stories; 60x100 ft.

N. C., Monroe.—City accepted plans for remodeling Mrs. Ellen Fitzgerald's Home for hospital. Address The Mayor.

N. C., Raleigh.—North Carolina Training School for Nurses is having plans prepared for building for workers at sanitarium; 2 stories; brick. Address State Board of Health.

Okla., Miami.—State Baptist Hospital Association will soon let contract to erect \$100,000 hospital; F. M. McConnell, Supt. of Missions, Oklahoma City. (Previously noted.)

Okla., Muskogee.—Baptist Hospital indefinitely postponed erection of addition to hospital; E. E. McKibbin, Archt., Muskogee. (Previously noted.)

S. C., Greenville.—War Department, Washington, D. C., will erect three 2-story ward buildings at base hospital, Camp Sevier; also erect building at nurses' quarters and building for officers.

Tenn., Memphis.—Hospital Commission, John H. Sherard, Prest., will erect Methodist Hospital; accommodate 450 patients; cost \$400,000; Thos. B. King, financial agent.

Tex., Dallas.—Directors of Baby Camp, T. E. Jackson, Chmn Building Com., will erect \$30,000 hospital; plans by Lang & Wittich, Dallas, include 2 floors and basement; fireproof; reinforced concrete; stuccoed hollow-tile walls; 2 wards, 15x24 ft. each, with 15x18-ft. sleeping porch adjoining; also 2 isolated wards on first floor; 4 sleeping rooms and 15x22-ft. ward on second floor; accommodate 100; heating plant, laundry and kitchen in basement. (Lately noted.)

Tex., Houston.—Herman Charity Hospital, J. J. Settegast, Jr. and others, trustees, will erect hospital building at Bagby and Rusk Ave.; 40x130 ft.; 3 stories and basement; fireproof; composition tar and gravel roof; passenger elevator; cost \$100,000; plans by Alfred C. Finn, 206 Woolworth Bldg., Houston, will be ready for bids latter part of February, at which time date will be set for opening bids. (Previously noted.)

Tex., Rusk.—Board of Managers, East Texas Asylum for Insane, W. T. Norman, Prest., receives bids until Feb. 21 to remodel old penitentiary building and to erect additional building for which \$150,000 was appropriated; George Lindsey, Archt., Greenville, Tex. (Previously noted.)

Tex., Yoakum.—City is considering election on \$50,000 bond issue to erect municipal hospital. Address The Mayor.

HOTELS

Ala., Montgomery.—Mrs. D. P. West will erect 7-story structure to replace Windsor Hotel noted damaged by fire at loss of \$75,000.

Fla., Elkton.—M. L. Grimes will erect 14-room hotel.

Fla., Miami.—J. C. Vereen will possibly begin erection of proposed hotel in summer; 3 stories; 30 rooms; pressed brick; lower floor for store; cost \$30,000. (Previously noted.)

Fla., Milton.—R. J. Allen will erect 25-room hotel, residence and garage; latter 100x60 ft.

N. C., Charlotte.—Louis H. Asbury, Charlotte, architect for hotel lately detailed, states project has been abandoned.

Okla., Tulsa.—Charles Page, Sand Springs, Okla., will erect hotel for working women and girls; will establish vegetable farm, dairy, etc., in connection. Mr. Page wires Manufacturers Record: Building 60x140 ft.; 7 stories.

Okla., Tulsa.—H. R. Ketchum has plans for 3 additional stories to Ketchum Hotel; each room equipped with private bath; will also improve entire structure, install grill-room with grill ranges, enamel refrigerating plant, circulating ice and hot water in all rooms, additional high-speed tractor elevator, etc.

Tenn., Nashville.—E. E. Daugherty and Thos. W. Gardner, Stahlman Bldg., Nashville, are reported to have prepared plans for proposed Ansonia Apartments and hotel. (See Apartment-Houses.)

Va., Petersburg.—Petersburg Investment Corp. will not erect addition to hotel as previously noted.

Va., Springs.—Craig Healing Springs Hotel Incptd. with \$250,000 capital by F. J. Crowley, Prest.; S. A. Moore, Secy.-Treas., both of Charleston, W. Va.

W. Va., Clarksburg.—Lee R. Rogers purchased Gore Hotel; will remodel adjoining store to be used in connection with dining-room of hotel.

W. Va., Mullens.—Bank of Wyoming will erect bank and hotel building; bids opened Feb. 14; contractors estimating are: J. L. Crouse, Greensboro, N. C.; King Lumber Co., Charlottesville, Va.; John F. Barbour & Sons, D. J. Phipps, E. M. Herrington, A. L. Marshall; all of Roanoke, Va.; plans by G. R. Ragan, Roanoke, call for 7-story brick, granite, iron and cement structure; 60x90 ft.; asbestos roof; wood and tile floors; steam heat; electric lights; prism sidewalk lights; cost \$90,000. (See Bank and Office.)

MISCELLANEOUS

Ark., Conway.—Clubhouse.—W. E. Chibourn, Game Warden, will probably erect frame clubhouse 5 mi. south of Conway. (Previously noted.)

Miss., Hattiesburg.—Clubhouse.—War Camp Community Service Board will erect soldiers' clubhouse and auditorium; 80x130 ft.; seating capacity 200. (Lately noted.)

Tex., Fort Worth.—Salvation Army.—Salvation Army will erect hut at Camp Bowie.

Tex., Fort Worth.—Exposition.—Southwestern Exposition of Fort Worth changed name to Southwestern Exposition & Fat Stock Show of Fort Worth and increased capital stock from \$100 to \$12,500; will erect automobile showroom; C. R. Hamilton, Asst. Secy.-Mgr.

Tex., Waco.—Clubhouse.—Spring Lake Country Club indefinitely postponed erection of proposed \$25,000 clubhouse; Ross & Cason, Architects, Waco; F. L. Booth, Chrmn. Building Com. (Previously noted.)

RAILWAY STATIONS, SHEDS, ETC.

Ark., Blytheville.—St. Louis Southwestern Railway Co. of Texas, C. D. Purdon, Conslt. Engr., St. Louis, will probably erect frame depot; construction by company force. (Previously noted.)

Ark., Humphrey.—St. Louis Southwestern R. R., C. D. Purdon, Chief Engr., St. Louis will erect passenger station; cost \$9000 to \$10,000.

Okla., Bristow.—St. Louis-San Francisco Railway Co., F. G. Jonah, Chief Engr., St. Louis, previously noted to erect concrete depot, will at present repair and slightly enlarge present structure; construction by company force.

Okla., Walkers.—Chicago, Rock Island & Pacific Railway, C. A. Morse, Chief Engr., Chicago, indefinitely postponed erection of proposed \$12,000 depot; A. T. Hawk, Archt., Chicago. (Previously noted.)

W. Va., Charleston.—Charleston-Dunbar Traction Co., Fred. Paul Grosseup, Prest., plans to construct terminal station on Kanawha St.

SCHOOLS

Ala., Gadsden.—Ewing School District, R. F. D. No. 2, will erect school building; 2 rooms 53x25 ft. and 25x30 ft.; wood; shingle roof; No. 1 pine floors; cost \$1500; construction begins soon. (Lately noted.)

D. C., Deanwood, R. D. from Washington. District Commrs., Washington, rejected all bids to erect addition and alter Deanwood School, No. 152, Whittingham, Pl. (Previously noted to receive bids.)

Fla., Ormond.—Ormond School District is considering election on \$25,000 bonds to erect school. Address Supt. of Volusia County, De Land, Fla.

Fla., Quincy.—Gadsden County votes March 19 on \$42,000 bonds to include \$30,000 to erect building and \$12,000 for indebtedness. Address County Board of Public Instruction. (Lately noted.)

Fla., Vero.—Vero School Dist. is considering election on \$25,000 bonds to erect school building. Address Dist. School Trustees. (Lately noted.)

Ga., Atlanta.—Board of Education will erect Eighth Ward school on Spring St., Moreland Ave. school and school for Oakland City; Jas. E. Hickey, Chrmn. Finance Com.

Ga., Ty Ty.—City votes March 8 on \$2500 bonds to erect and equip school; R. R. Pickett, Mayor.

Ky., Elkhorn.—Fonso Wright, County Supt. of Schools of Pike County, Pikesville, Ky., is interested in erection of 7-room school building.

Ky., Ice.—Carbon Hill Collieries Co. is considering erecting school. (See Dwellings.)

Ky., Jackshorn.—Elkhorn By-Product Coal Co. will erect church and school buildings at Parsons; contracts to be let at once.

Mo., Columbia.—Stephens College Trustees will erect dormitory; cost \$60,000.

N. C., Wilmington.—County Commrs. are considering election on \$250,000 bonds to include \$135,000 to erect high school, \$16,000 to pay debt and balance for other school improvements, principally in county.

N. C., Winston-Salem.—Slater Normal and Industrial School, H. E. Fries; Chrmn. Board of Trustees, will erect \$25,000 industrial building to include manual training department, agricultural and horticultural departments, broom-making shop, chair-caning classes, etc.

N. C., Ellerbe.—School District No. 4, Richmond County, has plans by C. Gadsden Sayre, Anderson, S. C., for school building; 6 classrooms, basement and auditorium; ordinary construction; Barrett specification roof; steam heat; electric lights; cost \$15,000; bids opened Feb. 15; O. G. Reynolds, Secy. School District. (Previously noted.)

N. C., Morganton.—North Carolina School for the Deaf, E. McK. Doodwin, Supt., opens bids March 1 to erect infirmary building; plans and specifications at school, Morganton, and office C. C. Hook, Archt., Charlotte, N. C.

Okla., Ada.—School Board is considering election on \$25,000 bonds to erect school.

Okla., Covington.—City is reported to have voted \$20,000 school bonds. Address The Mayor.

Okla., Chandler.—Chandler Dist. No. 1, Lincoln County, Okla., voted \$14,000 bonds to erect school building; A. S. Hiat, Supt. (Lately noted.)

Okla., Miami.—Miami School District plans to issue \$43,000 bonds to erect school building. Address School Trustees.

Okla., Ringling.—Zita District will vote on bonds to erect school. Address School Trustees.

Okla., Stroud.—School District No. 54 has plans by Stewart & Wilderson, Oklahoma City, for combination high and graded school; brick or tile and stucco; \$44,000 bonds voted. (Lately noted.)

Okla., Tishomingo.—Commr. of Indian Affairs, Dept. of Interior, Washington, D. C., opens bids March 11 to erect 2 dormitories at Murray State School of Agriculture; plans and specifications at office Kansas City Star, United States warehouse at Chicago, St. Louis, San Francisco and Builders' Exchange, St. Paul, Minn., and office Supvr., Five Civilized Tribes School, Muskogee, latter furnishing any further information; Cato Selis, Commr.

S. C., Lancaster.—Lancaster School District is considering election on \$80,000 bond issue for improvements to schools. Address District School Trustees.

Tenn., Whitehaven.—School Board will erect building to replace structure lately noted damaged by fire; brick construction; date opening bids or beginning construction not set. Address F. N. Taylor.

Tex., Dallas.—Board of Education is reported to have appropriated \$50,000 to erect Oak Grove and Reiger Avenue schools; E. W. Greiner, Prest.

Tex., Donna.—Board of Education will erect \$50,000 high school; plans prepared.

Tex., Houston.—City will probably erect school to replace burned Luckie School; brick; cost about \$10,000; Dr. P. W. Horn, Supt. of City Schools.

Tex., Orange.—City will erect 7-room and heating plant addition to school on Park Ave.; brick; Barrett specification roof; steam heat; cost about \$25,000; also erect school on Henderson St.; 16 classrooms, restroom, library and office; 2 stories; reinforced concrete, brick and hollow tile; Barrett specification roof; concrete floors covered with wood; steam heat; cost about \$55,000; C. H. Page & Bro., Archts., Austin. (Lately noted.)

Va., Keysville.—School Trustees will erect high school to replace structure lately noted damaged by fire.

STORES

Ala., Birmingham.—J. L. Welch will expend \$2000 to repair building recently damaged by fire.

Ark., Marianna.—Freeman & Co. will remodel business building.

Fla., Jacksonville.—A. L. Clayton will expend \$5000 to alter 4-story brick building, 516 W. State St.

Fla., Kieco, via Florida.—Kissimmee Island Cattle Co., W. J. Kelly, Prest., Jacksonville, will erect commissary building. (See Dwellings.)

Fla., Miami.—J. C. Vereen will possibly begin erection of store and hotel building in summer. (See Hotels.)

Ky., Nortonville.—Norton Coal Mining Co. opens bids Feb. 19 to erect brick supply-house 26x52 ft.; brick commissary 40x120 ft., and brick addition to power-house 25x32 ft.; tin and Johns-Manville roofing; commissary floors wood, others concrete; direct steam heat; Ben Price, Archt., Birmingham, Ala. (Lately noted.)

Ky., Whitesburg.—Felix G. Field will rebuild structure noted damaged by fire at loss of \$10,000.

La., New Orleans.—Nortropic Cabarrus Co. will remodel building at Canal and Royal Sts. for refreshment stand.

La., Vinton.—Mrs. J. H. Ford is having plans prepared by Mr. Humphrey for store building; brick; 30x90 ft.; 1 story; plate-glass front; cost \$5000.

Mo., St. Louis.—G. T. Bordeau, 713 Chestnut St., has plans by P. J. Bradshaw, International Life Bldg., St. Louis, for store and loft building, 17th and Olive Sts.; 7 stories; 80x109 ft.; brick, stone and terra-cotta.

N. C., Charlotte.—Ed. Cowan of Nathan Trivers & Bro., New York, is supervising remodeling of Trivers Store, 14 N. Tyron St.; new front, remodeling and redecorating of interior.

N. C., Greensboro.—M. J. Adams will erect store; cost \$2500.

Okla., Cheyenne.—C. Kemp will erect concrete business building.

Okla., Mannsville.—P. Rich, T. Edelin and others plan to erect business building.

Okla., Miami.—O. M. Helgeson will erect business building.

Tex., Coleman.—E. E. McElrath will erect 1-story brick business building; frontage 50 feet.

Tex., Crockett.—A. W. Ellis will erect brick business building.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ga., Atlanta.—B. J. Davis, 200 Auburn Ave., let contract to Alex. D. Hamilton, 69 Ivy St., Atlanta, to erect apartment-house at 186 Ellis St.; frame; cost \$3500; 2 suites. (Lately noted under Dwellings.)

ASSOCIATION AND FRATERNAL

Ala., Montgomery.—Y. W. C. A. let contract to Stuart Lumber Co., Montgomery, to erect hostess-house at Camp Sheridan; 60x54

Tex., El Paso.—J. E. Neff will expend \$3000 to alter building at Kansas & Overland Sts.

Tex., San Antonio.—J. Du Puy will expend \$7000 to remodel and erect 2-room addition to building on Craig Place.

Tex., Yoakum.—Green & Welhausen will erect 1-story brick business building.

Va., Portsmouth.—Portsmouth Bargain House (H. Silverman & Bro.) receives bids until Feb. 21 to erect store building, according to revised plans by Rosel Edward Mitchell, Paul-Gail-Greenwood Bldg., Norfolk; cost about \$15,000. (Lately noted.)

W. Va., Hinton.—New River Hardware Co., W. P. Bowling, Mgr., will probably rebuild store noted damaged by fire.

W. Va., Raywood.—Warn Lumber Corp. will erect store and office building to replace structure lately noted damaged by fire; 24 104 ft.; wood; composition roof; wood floors; hot-water heat; electric lights; construction begun. (See Machinery Wanted-Fixtures; Store and Office; Furniture.)

THEATERS

Okla., Miami.—Dr. V. V. Grant and J. D. Yeargain are reported promoting erection of theater.

Tex., Orange.—Harry Kitterman of Kitterman Bros. will establish motion-picture theater in New Holland Bldg.; seating capacity 800; install \$10,000 piano.

Tex., Waco.—J. G. Love and A. Roaring, St. Louis, Mo., are reported to erect frame theater at Camp MacArthur; 75x200 ft.

WAREHOUSES

Ala., Birmingham.—Union Cotton Oil Co., J. G. Whitfield, Prest., is reported to rebuild warehouse noted damaged by fire at loss of \$75,000.

Ark., Little Rock.—S. M. Apple will erect 2-story frame warehouse at foot of East Ninth St.; cost \$10,000.

D. C., Washington.—Bureau of Yards and Docks, Navy Department, A. L. Parsons, Chief, will erect storehouse at Pearl Harbor, reinforced concrete frame and roof beams, 40x94 ft., 12 ft. high; bids opened Feb. 11. (See Government and State.)

Ga., Savannah.—American Grocers' Society, Inc., New York, will erect warehouse.

La., Monroe.—City will erect freight warehouse in connection with river terminal. (See Miscellaneous Construction.)

Md., Baltimore.—C. A. Gambrell Mfg. Co. has plans by Smith & May, 1133 Calvert Bldg., Baltimore, for improvements to warehouse 110 Commerce St.; Charles L. Stuchausen Co., Marine National Bank Bldg., and Frannie Bros. & Hagley, 18 Clay St., have been invited to estimate.

N. C., Lumberton.—A. W. McLean, E. D. and L. H. Caldwell and K. M. Biggs has plans by and let contract to S. A. Branch, Lumberton, to erect tobacco sales warehouse; brick; 80x200 ft.; composition roof; wood floors; cost \$12,000; leased to Knott & Smith, Henderson, N. C.

S. C., Charleston.—American Grocers' Society, Inc., John J. Horran, V.P., New York, will erect warehouse.

Tenn., Knoxville.—E. B. Mann Undertaking Co. will erect warehouse; cost \$4000.

Tex., Beaumont.—Beaumont Shipbuilding & Dry Dock Co. will build warehouses in connection with \$1,000,000 for additional facilities.

Tex., El Paso.—S. P. Puttman will erect warehouse; cost \$15,000.

Tex., El Paso.—C. M. Youngbred will build brick warehouse; cost \$3500.

Tex., San Angelo.—James McCord & Co., Fort Worth, will erect brick office building and warehouse; cost several thousand dollars.

Va., Richmond.—John G. Pollard will erect \$3000 warehouse.

BANK AND OFFICE

Ala., Montgomery.—D. C. Knox let contract to Hugger Bros., Montgomery, to erect store and office building; 2 stories; 20x30 ft.

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Mo., Aberdeen.—John Donnelly, Havre de Grace, has plans by and let contract to Martin Foley, Havre de Grace, to erect building for offices, stores and market-house to replace burned structure; 40x50 ft.; 2 stories; brick or concrete blocks; slate or metal roof; wood floors; electric or acetylene gas lighting to cost \$300. Address owner. (See Stores.)

S. C., Bishopville.—Farmers' Loan and Trust Co. has plans by and let contract to Palmer-Spivey Construction Co., Augusta, Ga., to erect bank building; 24x79 ft.; ordinary construction; limestone front; tin roof; cost \$1005. Address contractor. (Lately noted.)

Tenn., Nashville.—American National Bank let contract to E. G. Holladay & Co., Nashville, to remodel fixtures in bank building. (Lately noted to remodel building.)

Tex., Dallas.—D. E. Waggoner let contract to Watson Company, P. O. Box 102, Dallas, to erect 6 additional stories to 4-story building for offices of Texas & Pacific R. R.; 180x75 ft.; reinforced concrete; tar and gravel roof; truss concrete steel Floretye flooring; probably steam heat; city electric lights; cost \$225,000; Lang & Wittchell, Architects, Dallas. Address contractor. (Lately noted.)

Va., Louisa.—First National Bank of Louisa, P. B. Porter, Prest., let contract to W. P. Thurston Co., Richmond, to erect building; 36x64 ft.; 1 story, mezzanine and basement; limestone, brick and ordinary construction; slag roof; wood floors; city electric lights; area gratings; cost \$24,915; hot-air heat, \$450; Eugene Bradbury, Architect, Charlottesville, Va. Address sub-contractor to contractor.

CHURCHES

Mo., Odenton.—Protestant Episcopal Diocese of Maryland and Pennsylvania, Geo. C. Thomas, Chmn., 1313 Fidelity Bldg., Baltimore, Md., let contract to erect church for 7th Division of National Army at Camp Meade; shape of cross; contain chapel, recreation rooms, etc.; Riggins Buckler of Sili, Buckler & Fenhagen, Archt., 11 E. Pleasant St., Baltimore. (Lately noted.)

Mo., St. Louis.—Holy Trinity Parish let contract to C. A. Welsh Construction Co., St. Louis, to erect 2-story brick school; cost \$25,000.

DWELLINGS

Fla., Coconut Grove.—John Bindley let contract to St. Johns Construction Co., Miami, to erect residence; Kiehnel & Elliott, Architects, 1005 Keenan Bldg., Pittsburgh, Pa. (Previously noted.)

Fla., Jacksonville.—T. C. Hobbs has plans by and let contract to Henry Taylor & Son, 235 Oak St., Jacksonville, to erect residence; frame; asphalt shingle roof; city lighting; 24x44 ft.; cost \$3000. (Lately noted.)

Fla., Vero.—Fred. Sanders let contract to Travis & Wollen, Vero, to erect bungalow; 20x42 ft.; wood and stucco; slate shingle roof; wood floors; open fireplaces; city electric lights; cost \$2800; M. J. Travis, Archt., Vero. (See Machinery Wanted—Tile; Lighting Fixtures; Roofing.)

Ga., Albany.—D. L. Bates let contract to J. B. Campbell, Albany, to erect residence; 56x6 ft.; hollow tile and stucco; Carey asphalt slate roof; oak floors; city electric lights; cost \$5000; heating, \$275. (Lately noted.)

Ga., Hawkinsville.—M. G. Wilcox has plans by and let contract to S. W. Conner, Hawkinsville, to erect lately-noted residence; 8 rooms; frame; slate-coat shingle roof; wood floors; cost \$3300. (See Machinery Wanted—Paints and Oils.)

Ga., Macon.—Mrs. F. S. Perry let contract to O. B. Hines, Macon, to erect residence; frame; single-tile roof; frame floors; hot-water heat; electric and gas lights; Chas. Edward Choate, Archt., Atlanta. Address contractor. (Lately noted.)

N. C., Winston-Salem.—J. W. Brown let contract to J. E. Kennerly, Winston-Salem, to erect 2-story 8-room residence; W. C. Northrup, Archt., Winston-Salem.

Tex., Beaumont.—P. E. Hammons let contract to G. E. Zernial, Beaumont, to erect 4 dwellings; cost \$3000 each; C. A. Logan, Archt., Beaumont.

Tex., Beaumont.—W. A. Bowie let contract to Jack Davis, Beaumont, to erect lately-noted residence at 4th and Hazel Sts.; 54x64 ft.; Mexican style patio; concrete foundation; interlocking hollow tile, stucco and plaster; cement concrete roof; pine and oak floors; city lighting; stove and fireplaces. (See Machinery Wanted—Building Materials; Stucco; Tiling.)

Tex., Copperas Cove.—W. P. Gibson let contract to J. F. Drew & Son, Lometa, Tex., to erect residence; cost \$15,024.

Tex., El Paso.—El Paso Gas Co. has plans by and let contract to J. F. Woodyard, Jr., El Paso, to erect residence for man in charge of sub-station; 26x36 ft.; brick; red "brick top" roofing; cost \$3500; all materials purchased. (Mr. Woodyard lately noted to erect this residence.)

Tex., Fort Worth.—A. J. Long, 1039 Elizabeth Blvd., has plans by W. G. Clarkson, 2100 Sixth Ave., Fort Worth, for residence to replace structure lately noted damaged by fire; 15 or 16 rooms; brick and hollow tile; tile roof; shiplap and hardwood (on surface) floors; steam heat; cost \$35,000 to \$40,000; date opening bids not set; construction begins about March 1. Address owner.

Tex., Whitesboro.—W. S. Omohundro let contract to C. V. Pearce to erect 2-story residence.

Va., Newport News.—Shipbuilding Realty Corporation Incptd. with H. L. Ferguson, Prest.; J. E. McMurrin, Secy., to supervise construction of 200 dwellings for employes of Newport News Shipbuilding & Dry Dock Co., which company was lately noted to have let contract to Mellon & Steuart, Munsey Bldg., Washington, D. C., for this operation.

Va., Norfolk.—War Department, Washington, D. C., let contract to erect number of bungalows at army depot at Bush Bluffs; Major M. A. Butler in charge construction. (Lately noted.)

Va., Portsmouth.—W. R. Harrell let contract to Calvin Johnson & Son, Portsmouth, to erect addition to dwelling and convert into 2-family structure; cost \$2400.

W. Va., Lock 7.—Thompson-Starrett Co., 49 Wall St., New York, contractor for Government explosives manufacturing plant at Crawford City, let contract at about \$1,500,000 to Huntington Lumber & Supply Co., Huntington, W. Va., to build 1720 houses; patterns to be cut at Huntington yards of lumber company and shipped ready for erection.

GOVERNMENT AND STATE

Ga., Americus—Aviation Camp.—War Department, Washington, D. C., is reported to have let contract to Hardaway Contracting Co., Columbus, Ga., to construct buildings at aviation camp and to McCrary Co., Atlanta, for engineering work, sub-soling, contract sewerage and make all water connections. (Lately noted to have let contract to another firm for erection of buildings on 3 aviation fields.)

Ga., Augusta—Barracks, etc.—United States Ordnance Department let contract to Sibert & Robison, 651 Broad St., Augusta, to erect temporary barracks, school and lavatory; three 20x161 ft., two 20x154 ft. and one 20x49 ft.; brick wall foundations; 2x12 joist; 2-in. floor; frame superstructure; 3-ply rubber roofing; 2-in. tongue and groove wood floors; stoves cost \$26,000; electric lights, \$300. Address contractors. (See Machinery Wanted—Lumber.)

Va., Newport News.—Y. M. C. A.—National Y. M. C. A. let contract to Baker, Brinkley Co., Norfolk, to erect additional buildings at Camp Hill and at Camp Stuart.

Va., Norfolk—Bungalows.—War Dept., Washington, D. C., let contract to erect number of bungalows at Army Depot at Bush Bluffs. (See Dwellings.)

HOSPITALS, SANITARIUMS, ETC.

Tex., Abilene.—Alexander Sanitarium let contract to R. C. Lewis, Abilene, to erect sanitarium building; 40x90 ft.; reinforced concrete; tar and gravel roof; tile floors; Otis elevator or equal; cost \$25,000; heating, \$4500; lighting, \$2000; R. S. Glenn, Archt., Abilene. (Previously noted.)

HOTELS

Tex., McAllen.—Rio Grande Hotel Co. organized with \$88,000 by M. L. Waller, Prest.; Dr. F. E. Osborne, V.-P.; R. E. Horn, Secy.-Treas.; let contract to A. O. Harvey, Fort Worth, to erect hotel; plans by M. L. Waller & Co., Dan Waggoner Bldg., Fort Worth, call for 3 stories; fireproof; reinforced concrete; pebble-dash finish; gypsum block or hollow tile; 57 bedrooms; 30 private baths; dining-room, sample-room, etc. (Previously noted.)

MISCELLANEOUS

Mo., Kansas City—Clubhouse.—Kansas City Athletic Club let contract to Wells Bros., 53 W. Jackson Blvd., Chicago, to erect clubhouse; reinforced concrete; 30 stories; granite, terra cotta and brick facing; French Gothic style; cost \$1,500,000; Henry F. Holt

and McKecknie & Trask, Associate Architects, Kansas City. (Previously noted.)

Tex., Beaumont—Shed.—Turnbow Lumber Co. let contract to H. J. Davis, Beaumont, to erect lumber-yard shed; cost \$6000; C. A. Logan, Archt., Beaumont.

Va., Schoolfield—Dormitory.—Riverside and Dan River Cotton Mills, R. A. Schoolfield, Prest., Danville, Va., let contract to T. C. Thompson & Bros., Charlotte, N. C., to erect Young Women's Home; 113x208 ft.; four stories; brick and concrete; tile or slate roof; pine, oak and maple floors; dormitory, living-room, reading-room, auditorium, gymnasium, swimming-pool and sleeping quarters; accommodate 200; cost about \$150,000; contracts for heating and plumbing let in few days; Heard & Cardwell, Architects, Lynchburg, Va. (Lately noted.)

RAILWAY STATIONS, SHEDS, ETC.

Tenn., Jackson.—Illinois Central R. R. Co. let contract to Jos. E. Nelson & Sons, 118 N. La Salle St., Chicago, to build storehouse, offices and oilhouses at shops; portion 2 stories, 37x72 ft.; another 1 story, 37x175 ft.; brick walls; wood roof; interior partitions and second floor; oilhouse fireproof; 2-story portion with slate roof; 1-story section composition roof; floors in storerooms creosoted wood blocks on concrete base; offices maple; toilet-rooms, washrooms and oilhouse concrete; lighting from public utility; cost \$45,000; direct radiation steam from central station, \$5000; plans by J. R. Judd, engineer of buildings of company, Chicago. (Previously noted.)

SCHOOLS

N. C., Salisbury.—City let contract to L. Bradshaw, Salisbury, to erect North Main Street graded school; Harry Barton, Archt., Greensboro. (Previously noted.)

Tex., Barnhart.—Trustees let contract to C. S. Oates, Dublin, Tex., to erect 2-story school building; native stone; cost \$12,000; \$15,000 bonds voted.

Tex., Coryell.—Coryell School Board let contract to Smith & Metcalf, Gatesville, Tex., to erect school building; 50x48 ft.; brick; Barrett specification roof; wood floors; stoves; cost \$9775; Ross & Cason, Architects, Waco, Tex. (Previously noted.)

Tex., Denton.—State Board of Regents, A. C. Goeth, Prest., 708-12 Congress Ave., Austin, let contract to Jopling Bros., Corsicana, Tex., to erect educational building at North Texas State Normal; plans by C. H. Page & Bro., Austin, call for reinforced concrete structure; cost \$78,900. (Lately noted.)

Tex., Huntsville.—State Normal School Board of Regents let contract to Gross & Swigert, Waco, Tex., to erect educational building at Sam Houston State Normal School; reinforced concrete; cost \$50,000; Geo. A. Endress, Archt., Austin. (Lately noted.)

Tex., Prairie View.—Directors of Agricultural & Mechanical College of Texas, College Station, let contract to Walsh & Burney, Austin, to erect agricultural building; 217,000 cu. ft.; fireproof; built-up roof; reinforced concrete floors; about 130 sq. ft. sidewalks, under way (3 ways); cost \$48,620; steam heat from central plant, \$3548; electric lights from central plant, \$1198; plans by Department of Agriculture of A. & M. College, College Station. Address contractors. (Other contracts lately noted.)

Tex., Stephenville.—Directors of Agricultural & Mechanical College of Texas, College Station, let contract to J. E. Johnson Construction Co., Waco, to erect agricultural building; 387,000 cu. ft.; fireproof; tar and gravel roof; concrete and tile floors; cost \$75,986; steam heat and electric lights from central plant, cost \$5890 and \$2300, respectively; plans by Dept. of Architecture, A. & M. College, College Station. Address contractor. (Other contracts lately noted.)

STORES

Ala., Montgomery.—J. C. Tyson will erect new front in store building; cost \$2000; Hugger Bros., Contrs., Montgomery.

Ala., Montgomery.—D. C. Knox let contract to Hugger Bros., Montgomery, to erect store and office building; 2 stories; 20x30 ft.; brick and stone exterior; wood interior; tar and gravel roof; wood floors; cost about \$7500. (Lately noted.)

Ga., Fort Valley.—Edwards Brothers let contract to W. F. Thames, Macon, to remodel store front; plate-glass show windows; prism glass above transom bar; hardwood floors; gum panels; tiled vestibule; cost \$2500; Happ & Shelverton, Architects, Macon. (Lately noted.)

Ky., Paducah.—City Purchasing & Improvement Co. let contract to J. W. Lockwood, Paducah, to erect 2 store buildings, 18x60 ft. and 22x36 ft.; 2 stories; brick and concrete; Barrett roofing; concrete and tile floors; steam heat; cost \$10,300; lighting, \$350; metal ceiling; prism and plate glass; white tile ceiling; iron shutters, outside openings; Wm. Brainerd, Archt., Paducah. (Lately noted.)

Mo., St. Louis.—Burdeau Realty Co. will erect 2-story brick mercantile building, 221-29 Locust St.; cost \$50,000; T. J. Ward & Co., Contrs., St. Louis.

N. C., Winston-Salem.—E. F. Barber let contract to Fogle Bros., Winston-Salem, to erect business building.

S. C., Greenville.—Mrs. Charlotte R. Smith let contract to Baker & Williams, Greenville, to erect store building; 4 storerooms; 2 stories and basement; 75x100 ft.; brick with pressed brick on both street fronts; 5-ply tar and gravel roofing on wood sheathing and joists; terrazzo and rift pine floors; city electric lights; cost about \$35,000; H. Olin Jones, Archt., Greenville. (Lately noted.)

Tex., San Antonio.—Burns Estate let contract to J. Haynes, San Antonio, to erect 4-story business building.

Va., Portsmouth.—R. A. Bulloch let contract to J. N. Ward, Portsmouth, to remodel buildings at High St. and Richmond Ave. and Chestnut St., respectively; cost \$2768.

WAREHOUSES

Fla., Quincy.—Jacob Weil let contract to Q. N. Cooper, Quincy, to erect addition to tobacco warehouse; 40x70 ft.; mill construction; 15-year guaranteed roofing; brick floors; cost \$2500; Richardson & Boynton low-pressure heating system, \$600. (Lately noted.)

Md., Baltimore.—Geo. W. Wilkinson, Jr., has plans by and let contract to L. Schoenlein, Jr., 21 Gunther Bldg., Baltimore, for 2-story warehouse at 164 N. Gay St.; 21.9x33 ft.; cost \$3000.

Md., Curtis Bay.—United States Industrial Alcohol Co., M. C. Whitaker, Prest., 27 William St., New York, let contract at \$50,000 to Austin Company, 1026 Bulletin Bldg., Philadelphia, Pa., to erect warehouse; 1 story; 60x120 ft. (Previously noted.)

Tex., San Antonio.—Webster Company let contract to Jim Morgan, San Antonio, to erect 3 warehouses; 400x61 ft., 150x235 ft. and 200x400 ft.; tile construction; rubberoid roof; cement floors; cost \$75,000; F. R. Young, Archt., San Antonio. (Lately noted.)

Tex., San Antonio.—Pittsburg Plate Glass Co., Chas. S. Baxter, Local Mgr., has plans by L. Harrington Co. and let contract to Chas. M. Schoenfeld, both of San Antonio, to erect warehouse; 224x75 ft.; brick, tile and reinforced concrete; metal windows; steel rolling doors; front portion for offices and display-rooms; office equipped with built-in vault; rear portion for handling freight, for storage, etc.; loading and freight platforms; cost \$40,000. (Lately noted.)

Va., Roanoke.—Virginia Can Co., Albermarle Ave., let contract at \$28,000 to J. F. Barbour & Sons, Roanoke, to erect warehouse; 2 stories; 62x133 ft.

For Safety and Co-operation.

The Independence Bureau, with offices at 137 S. Fifth St., Philadelphia, and also in the People's Gas Bldg., Chicago, has issued a booklet presenting a most interesting outline of its work. This organization, which was established in 1903, extends its service to property owners and employers with the object of preventing fires and accidents, and also to establish harmonious and co-operative relations between employers and employees. It says that the service provides for periodic examinations and reports, educational visits, training of engineers, employment managers, safety committees and others, and for consultation on construction, equipment and operation problems. A partial list of clients includes many of the largest and most prominent manufacturers in the country. Clients are distributed throughout 41 States and also in Canada. By this service it is said that employees are made more vigilant and careful, and they more clearly understand the economic need to preserve amicable relations between labor and capital.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Agricultural Implements.—Kissimmee Island Cattle Co., W. F. Ward, Mgr., Kiceo, via Florida, Fla.—Prices on general farm machinery; gas tractors; oil tractors.

Agricultural Machinery Manufacturers.—See Cotton-picking Machines. — Cotton Picker Co. of America.

Airplane Manufacturers.—Troutdale Furniture Mfg. Co., F. L. Greer, Gen. Mgr., Troutdale, Va.—To correspond with manufacturers of airplanes.

Bank Fixtures.—Security State Bank, Shawnee, Okla.—Prices and data on marble bank fixtures.

Barges.—Cumberland River Steamboat Co., Lewis L. Baxter, Pres., 105 First Ave., Nashville, Tenn.—To buy or charter barges.

Belting (Rubber and Leather).—Moltz Lumber Co., Lake Toxaway, N. C.—Prices on second-hand belting, both rubber and leather.

Boiler.—N. F. Hunt, Nathalie, Va.—Prices on 40 or 50 H. P. boiler for canning factory.

Boiler.—See Mining Machinery (Coal).—Welch-Millard Co.

Boiler.—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—100 to 115 H. P. locomotive-type fire box boiler; good condition.

Boiler (Return Tubular).—E. C. Buttner, 1019 Empire Bldg., Atlanta, Ga.—Prices on 12x18 built strap, triple riveted, 150-lbs. pressure, horizontal return tubular boiler, with steel casing and stack.

Boilers (Marine).—Bert L. Sytar, 1121 James Bldg., Chattanooga, Tenn.—Dealers' prices on three 150 H. P. marine or internally-fired boilers; would consider larger number of smaller sizes; state age, condition and insurable pressures.

Bolts, Rivets, Copper and Brass Tubing, etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Feb. 26 to furnish bolts, rivets, tin, block tin pipe, bronze, copper, copper and brass tubing, barrow handles, coal shovels, steam traps, oakum, leather, paper, cargo check books, brass paper fasteners, pencils, pens, Manila rope, rubber rings, fountains, Klaxon signals, electric grinders, are lamps, globes, reflectors, power hack saw, copper cable and paint; blanks, etc., relating to circular (No. 1200) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; 606 Common St., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices in principal cities throughout United States.

Boiler.—Henry Loeb & Co., Memphis, Tenn.—200 H. P. Scotch marine boiler; first-class second-hand.

Building Materials.—W. A. Bowie, Beaumont, Tex.—Prices on stucco, plaster or cement stone trim, patio floor tiling and bathroom tiling for residence.

Building Materials.—Otis E. McCoy, Prest. Monkton Roller Mills, Mt. Washington, Md.—Catalogues and prices on building materials for flour mill of ordinary construction.

Buckets (Dredge).—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—Two ½-yd. clamshell buckets; 2 clamshell buckets of 1 to 1½-yd. capacity; Williams buckets preferred in larger sizes; must be located on railroad accepting shipments to Kansas City, Mo.

Cable Railway.—Warner Mining Co., Porter Warner, Secy., Mgr., Chattanooga, Tenn. Data and prices on cable railway or other means of conveying bauxite ore from top of ridge 350 ft. high across to railroad siding, about ¾ mi.; capacity 100 to 200 tons per 10 hours.

Capstans (Electrically-driven).—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until Feb. 18 for furnishing and installing 10 electrically-driven cap-

stans at navy-yards at Norfolk, Va., and Philadelphia, Pa. Drawings and specification, No. 2786, may be obtained on application to Bureau or to commandant of navy-yard or naval station named.

Cars (Tank).—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—To lease six 8000-gal. tank cars for 4 to 5 months.

Carbide (Miners).—John B. Guernsey & Co., R. D. McCaughin, Purchasing Agent, Strickland Bldg., Roanoke, Va.—Addresses of manufacturers of and jobbers in miners' carbide.

Cars (Tank and Refrigerator).—P. W. Jones, Mid-West Iron Co., 329 Railway Exchange, Kansas City, Mo.—Prices on 50 oil-tank cars, any size; 50 refrigerator or beef cars.

Car (Motor; Gasoline).—Moltz Lumber Co., Lake Toxaway, N. C.—Prices on second-hand 2-cylinder standard-gauge gasoline motor car.

Cement.—Otis E. McCoy, Prest. Monkton Roller Flour Mills, Mt. Washington, Md.—Catalogues and prices on cement. (See Electrical Equipment, etc.)

Chains (Brass).—G. A. Badger, Verna, Fla.—Addresses of manufacturers of fine small brass chains.

Cold-storage Machinery.—R. G. Rapier, care of Mobile Register, Mobile, Ala.—Addresses of manufacturers of machinery for cold-storage plants.

Compressor (Air).—W. C. care of Manufacturers Record, Baltimore, Md.—Prices on portable air compressor for drilling rock; give full details.

Conveying Machinery.—See Cable Railway.—Warner Mining Co.

Conveyor.—Farmers' Exchange, A. D. Flook, Mgr., Myersville, Md.—Prices on 40-ft. conveyor.

Condenser (Surface).—John T. Sharp, Jr., Supt. Electric Light & Water-works, Canton, Miss.—Prices on surface condenser for 200 H. P. high-speed engine, with cooling equipment for use with pond.

Cotton-picking Machines.—Cotton Picker Co. of America, L. F. Wegerly, Secy., Treas., 1539 Marquette Bldg., Chicago, Ill.—Correspondence with view to letting contract for manufacture of patented cotton-picking machines.

Crane (Electric).—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until Feb. 25 for electric traveling crane of overhead type installed on runways in addition to boat shop at navy-yard, Philadelphia; drawings and specification (No. 2809) on application to Bureau or to commandant of navy-yard.

Crusher and Grinder (Corn).—Farmers' Exchange, A. D. Flook, Mgr., Myersville, Md.—Prices on crusher and grinder.

Crusher (Coal).—Tennessee-Illinois Phosphate Co., Room 1214 at 105 W. Monroe St., Chicago, Ill.—Second-hand coal crusher, either single or double-roll teeth, with daily capacity of 500 tons.

Crushers (Rock).—Seaman Implement Co., Thompson Bldg., Third Ave., Huntington, W. Va.—Dealers' prices on rock crushers. (See Road Machinery.)

Coal Gates and Weighers.—See Mechanical Equipment.—Bureau Yards and Docks.

Drainage.—Potacowee Creek Drainage Dist. of Carroll and Grenada counties, Grenada, Miss.—To let contracts Feb. 28 to construct 2 mi. channel, 30 ft. wide on base, average depth 7 ft., and 3 mi. levees with crown of 6 ft., fill 10 ft., side slopes 2 to 1; total excavation 230,000 cu. yds. in channel and 160,000 cu. yds. in levees; drag-line excavator work; bonds to be sold; Morgan Engineering Co., Engr., 608 Goodwyn Institute Bldg., Memphis, Tenn.

Drainage.—Kissimmee Island Cattle Co., W. F. Ward, Mgr., Kiceo, via Florida,

Fla.—Open bids about July 1 to construct several canals 1 to 6 mi. long, 3 to 5 ft. deep, and 8 to 40 ft. wide.

Drainage System.—Supvrs. Highland Drainage Dist., P. W. Zachary, Secy., Mound City, Mo.—Bids until Feb. 18 to construct drainage canals and other improvements; 300,000 cu. yds. excavation; plans and profiles on file with Secy. of Board and A. M. Tibbels, Mound City.

Dredging.—Geo. E. Dutton, 2800 Dorien St., Shreveport, La.—Bids until Feb. 15 to widen Kelly Bayou; excavation 150,000 cu. yds.; suitable for small drag line; for further particulars address Mr. Dutton.

Drill (Core) Equipment.—Boo-Gra-Loe Mining Co., H. M. Loomer, Secy., Pawhuska, Okla.—Prices on core drill outfit, with gasoline engine; to drill to 250 ft. depth; operation Zinc, Ark.

Drills (Electric).—Welch-Millard Co., 422 Fourth & First National Bank Bldg., Nashville, Tenn.—Prices on second-hand drills. (See Mining Machinery.)

Dust Collectors.—Mount Airy Furniture Co., Mount Airy, N. C.—Prices on slow-speed dust-collecting system for carrying shavings and sawdust to furnace.

Electrical Equipment.—See Mining Machinery (Coal).—James P. Lewis.

Electrical Equipment, etc.—Otis E. McCoy, Prest. Monkton Roller Flour Mills, Mt. Washington, Md.—Catalogues and prices on electric generators; electrical controlling apparatus; general electrical supplies; turbines; cement.

Electrical Equipment.—Moltz Lumber Co., Lake Toxaway, N. C.—Prices on 250 light dynamo and engine with switchboard.

Engine.—See Electrical Equipment.—Moltz Lumber Co.

Engine (Gasoline).—Boo-Gra-Loe Mining Co., H. M. Loomer, Secy., Pawhuska, Okla. Prices on gasoline engine.—See Drill.

Engine.—See Mining Machinery (Coal).—Welch-Millard Co.

Engine.—See Generating Sets (Steam).—International Shipbuilding Co.

Engines (Traction; Gas and Oil).—Kissimmee Island Cattle Co., Kiceo, via Florida, Fla.—Prices on gas tractors and oil tractors.—See Agricultural Implements.

Engine (Crude-oil).—Weimar Oil Co., 405 Foster Bldg., Houston, Tex.—Prices on Mussey crude-oil engine, 25 to 50 H. P.

Excelsior Machines.—Macon Fuel & Supply Co., Sixth and Ocmulgee Sts., Macon, Ga.—Data and prices on excelsior machines.

Fixtures (Store and Office).—Warn Lumber Corporation, Raywood, W. Va.—Office and store furniture and fixtures.

Flooring (Tile).—Security State Bank, Shawnee, Okla.—Prices and correspondence on tile flooring for bank building.

Flour-mill Machinery.—H. T. Church, Box 475, Miami, Fla.—Prices on flour-mill machinery, capacity 200 to 400 lbs. daily.

Flour-mill Machinery.—Otis E. McCoy, Prest. Monkton Roller Mills, Mt. Washington, Md.—Catalogues and prices on wheat flour roller-mill machinery and supplies; building materials; electrical equipment.

Furniture.—See Fixtures (Store and Office).—Warn Lumber Corporation.

Gasoline Plant.—Lawrence Oil & Gas Co., 606 Charleston National Bank Bldg., Charleston, W. Va.—Bids and estimates on small gasoline plant.

Generating Sets (Steam).—International Shipbuilding Co., Box 508, Orange, Tex.—For immediate shipment, 350 or 400 K. W., 2300-volt, 3-phase, 60-cycle, A. C., steam-driven generator with engine and auxiliaries complete.

Generators (Electric).—See Mining Machinery (Coal).—Welch-Millard Co.

Graders and Scrapers.—See Road Machinery.—Seaman Implement Co.

Granulator (Stock Powders).—Madison Grocery Co., Madison, N. C.—Granulator for stock powders.

Grist Mills.—D. L. Jennings, Prest. Beaumont Mfg. Co., Spartanburg, S. C.—Data and prices on grist mills.

Hammers (Lumbermen's).—Bunge Freres, 124 Boulevard De Strasbourg, Havre, France.—800 lumbermen's hammers for marking timber; circular hammers with numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0 marked around and blank space for initials of firm.

Heaters (Fuel Oil; Feed Water).—See Mechanical Equipment.—Bureau Yards and Docks.

Hinges (Steel).—W. C. Logan, Louisville, Ga.—Correspondence with manufacturers of small steel hinges; large quantities.

Ice and Cold-storage Machinery.—W. H. Balentine, Greenville, S. C.—Prices on 10-ton ice machines; also small cold-storage rooms.

Knitting Machines.—Mrs. Hattie Wilson, Bailey, N. C.—Data and prices on household knitting machines, small and large type.

Kraut Machinery.—John S. Dix, Crockett, Va.—Data and prices on machinery to manufacture sauerkraut.

Lanterns.—G. A. Badger, Verna, Fla.—Addresses of manufacturers of lanterns.

Lighting Fixtures.—M. J. Travis, Verna, Fla.—Prices on electric-light fixtures for \$2800 bungalow.

Locomotive.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Prices on second-hand 30-in. gauge saddle tank, 4-wheel engine, 18 to 20 tons.

Locomotive, etc.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 30-in. gauge second-hand locomotive, capacity to draw 20 empty cars up 5 per cent. grade; also 2 mi. 30-lb. relay rails; give details.

Locomotive.—Willis Shaw, 230 Railway Exchange Bldg., Chicago, Ill.—Saddle-tank locomotive, standard-gauge, 4 or 6 drivers, steam brake, 25 to 35-ton weight; state whether boiler is lap or butt joint, full particulars and best cash price.

Locomotive.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand 16x24, 50-ton, 4-wheel, saddle-tank locomotive.

Lumber.—Sibert & Robison, 651 Broad St., Augusta, Ga.—Prices on lumber, 8x8-2x12-3; boards, 2-in. tongue and groove flooring, etc., for buildings on arsenal grounds at Augusta.

Mechanical Equipment.—Bureau Yards and Docks, Navy Dept., Washington, D. C. Bids until Feb. 18 for fuel-oil heater, feed-water heaters, flow meters, tanks, reversing well equipment, coal gates, coal weighers, induced draft fans, carbon-dioxide recorders and miscellaneous equipment at navy-yards, Norfolk, Va., and Philadelphia, Pa. Drawings and specification, No. 2780, obtained on application to Bureau or to commandant of navy-yards named.

Metals.—See Bolts, Rivets, Copper and Brass Tubing, etc.—Panama Canal.

Metal-working Machinery.—See Toy Machinery.—Jose Fernandez.

Mining Machinery.—Magnolia Lead & Zinc Co., J. B. Alken, Prest.-Mgr., 912 Herskowitz Bldg., Oklahoma City, Okla.—Mining machinery about May 1.

Mining Machinery (Coal).—James P. Lewis, Prest. Eureka Elkhorn Coal Co., Frankfort, Ky.—Prices on electrical equipment, mining machinery, etc., for probable installation at Whitesburg, Ky.

Mining Machinery (Coal).—Welch-Millard Co., 422 Fourth & First National Bank Bldg., Nashville, Tenn.—Prices (for purchase within 60 or 90 days) of following second-hand equipment: 60, 75 or 100 K. W. generator with boiler and engine, and all other equipment complete; small quantity copper wire, and some electric pumps and drills.

Mixers (Stock Powders).—Madison Grocery Co., Madison, N. C.—Hand or power mixers for stock powders.

Molds (Soap).—G. A. Badger, Verna, Fla.—Addresses of manufacturers of soap molds.

Motor Car.—Saluda Lumber Co., Saluda, S. C.—Data and prices on 2½-ton motor with trailer; for hauling lumber on country roads.

Paints and Oils.—S. W. Conner, Hawkinsville, Ga.—Prices on paints and oils for \$3200 residence.

Paper Machinery.—Antonio Vidal, Paseo S. Juan 31, Barcelona, Spain.—To represent two American firms making equipment for fabrication of paper, such as wood pulp bisulphite and balze wire cloth.

Paving.—E. E. Emerson, Spray, N. C.—Bids to construct 1500 yds. cement sidewalk on the Highland; no grading; conditions and specifications on request.

Paving.—City Commrs., Huntington, W. Va.—Bids until Feb. 20 to grade, curb and pave with vitrified brick 27th St. from Col. to Riverside Ave.; drawings, specifications, etc., on file with A. B. Maupin, City Engr.; O. H. Wells, Commr. of Streets, Sewers, etc.

Paving.—City of Columbia, Tenn., E. E. Erwin, Recorder.—Bids until Feb. 15 on about 26,000 sq. yds. asphaltic concrete paving on macadam foundation, including 60 in. ft. curb and gutter; plans and specifications on file City Hall.

Paving.—City of Decatur, Ga., W. H. Weaver, Supt. Construction.—Bids until Feb. 15 to construct sheet cement sidewalks and concrete and granite curbing during 1918; specifications from Mr. Weaver.

Paving.—City of Atlanta, Ga., W. E. Chambers, Purchasing Agent.—Bids until Feb. 18 to repave North Ave., from Marietta to Williams St.; consider asphalt, bituminous, vibrolithic, vitrified brick, creosoted wood block and concrete; specifications from Mr. Chambers.

Paving.—Baltimore (Md.) Board of Awards, City Hall.—Bids until Feb. 20 to grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 47 and 48; specifications and proposal sheets on application to Dept. of Public Improvements, Sub-Department of Highways Engr., City Hall; R. M. Cooksey, Highways Engr.

Peanut Mill Machinery.—F. C. Bennett, Southwestern Life Bldg., Dallas, Tex.—Addresses of manufacturers of peanut sheller and mill machinery.

Pier and Quay Wall.—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until Feb. 4 for timber and concrete earth-

ville, Tenn.—Prices on second-hand electric pumps. (See Mining Machinery.)

Quay Construction.—Wharf and Dock Comms., City Hall, Beaumont, Tex.—Bids until March 5 to construct following work at Kirby's Point: 1000, 750 and 500 ft. of quays, including dredging, removal of old piles, etc.; concrete construction; specifications, plans, etc., from Wharf and Dock Comms., City Hall, for \$5; C. L. Scherer, City Engr.; J. G. Sutton, City Secy.

Quarrying Equipment.—P. F. Kennedy, Box 166, Petersburg, Va.—Data and prices on soapstone quarrying equipment.

Rails.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 30-lb. relay rail.

Rails.—James P. Lewis, Prest. Eureka Elkhorn Coal Co., Frankfort, Ky.—Prices on second-hand 90-lb. railroad steel; for installation Whitesburg, Ky.

Rails, etc.—Elkhorn Jr. Coal Co., Croftsville, Ky.—Prices on 16-lb. rail and frogs and switches; 80-lb. rail, 2 frogs and switches.

Rail.—Moltz Lumber Co., Lake Toxaway, N. C.—Prices on 6 to 10 tons 16-lb. rail; also 4 track miles 56-lb. rail.

Rails and Switches.—Madigan-Johnson, 154 E. Pike St., Clarksville, W. Va.—Prices on relay rails and switches, 85 lbs.; also 30-lb. rails.

County Auditor, Belton, Tex.—Machinery for road oiling.

Roofing.—M. J. Travis, Vero, Fla.—Prices on roofing materials for \$2800 bungalow.

Road Machinery.—Seaman Implement Co., Thompson Bldg., Third Ave., Huntington, W. Va.—Addresses of manufacturers of road machinery: steam shovels, rock crushers, graders and scrapers.

Road Machinery.—City of Atlanta, Ga., W. E. Chambers, Purchasing Agent.—Bids until Feb. 18 for 2 steam drills, D. No. 24; No. 400 steel blacksmith blower; steam road roller, 3-wheel, 10-ton, scarifier attached; gasoline road roller, 3-wheel, 10-ton, compresses, scarifier attached; steam or gasoline 8-ton tandem roller; 450-gal. pressure oil or tar distributor, equipped with 2 pumps and draw-off valve and kerosene heater; giant grader, 8-ft. blade, for roller traction use; jaw and rock crusher with hourly capacity of 12 to 18 tons; bids to include specifications covering each machine.

Roofing Machinery.—Reliable Cleaning Co., 1013 Chestnut St., St. Louis, Mo.—Prices and catalogues on machinery for production of prepared or ready roofing.

Saws.—P. F. Kennedy, Box 166, Petersburg, Va.—Data and prices on saws for cutting soapstone into rough slabs; also for quarrying soapstone.

Sewer Construction.—Ardmore Investment Co., Ardmore, Okla.—Bids to construct 6000 ft. private sewer to connect with city sewer; specifications from company or J. A. Greene, Engr., Ardmore.

Sheller (Nut).—See Peanut Mill Machinery.—F. C. Bennett.

Sheller (Corn).—Farmers' Exchange, A. D. Flook, Mgr., Myersville, Md.—Prices on corn sheller.

Sewer Systems.—J. A. Murray, Kalida, Ohio.—Data and prices on sewage-disposal systems or antiseptic tanks for residences.

Shovel (Steam).—Toyah Texas Sulphur Co., Geo. Briggs, V.-P., Pecos, Tex.—Steam shovel for surface sulphur mining.

Shovels (Steam).—Seaman Implement Co., Thompson Bldg., Third Ave., Huntington,

W. Va.—Dealers' prices on steam shovels. (See Road Machinery.)

Stack (Steel).—Moltz Lumber Co., Lake Toxaway, N. C.—Prices on second-hand stack; 48 in. diam., 75 to 80 ft. high, of No. 8 steel.

Shovel (Steam).—Pennsylvania Equipment Co., 1429 Chestnut St., Philadelphia, Pa.—Second-hand, ¾-yd., standard-gauge steam shovel.

Slides (Lantern).—W. H. Rasche, care of Virginia Polytechnic Institute, Blacksburg, Va.—Correspondence, view to placing order for making lantern slides, by color photographic process or otherwise, from 3-color line drawings (mechanical drawings, made with draftsman's ruling pen, with colored ink).

Stucco.—W. A. Bowie, Beaumont, Tex.—Prices on stucco for residence.—See Building Materials.

Tanks.—See Mechanical Equipment.—Bureau Yards and Docks.

Tanks (Oil Storage).—P. W. Jones, Mid-West Iron Co., 329 Railway Exchange, Kansas City, Mo.—Prices on several field oil-storage tanks, large capacity.

Tile.—M. J. Travis, Vero, Fla.—Prices on floor and mantle tile for \$2800 bungalow.

Tiling.—W. A. Bowie, Beaumont, Tex.—Prices on patio floor tiling and bathroom tiling for residence.

Toy Machinery.—Jose Fernandez, Apartado No. 8, Monterey, N. L., Mexico.—Data and prices on machinery for manufacturing toys.

Turbines.—See Electrical Equipment, etc. Otis E. McCoy.

Well-drilling Equipment.—P. W. Jones, Mid-West Iron Co., 329 Railway Exchange, Kansas City, Mo.—Prices on oil well casing, 6¼, 8¼, 10 and 12½ sizes, cut lots; 40 ml. line pipe, 4 in., with recess couplings; several Star drilling rigs, 27 size.

Wire (Copper).—See Mining Machinery (Coal).—Welch-Millard Co.

Woodworking Machinery.—See Toy Machinery.—Jose Fernandez.

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CONTRACTORS BANKERS MANUFACTURERS and OTHERS

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RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—Alabama Interurban Railway Co. It is stated, has been inceptd. in Delaware to build the proposed line from Birmingham to the Warrior River. Capital \$5,000,000; half common and half preferred stock. Only 17 ml. of construction are proposed, entrance to Birmingham to be over an existing road. Thomas L. Cannon is Prest., the other incorporators, including Job Going, H. M. Gassman, Roy McCullough and O. P. Board, all of Birmingham, and James Tracy Hill of New York.

Ky., Whitesburg.—Louisville & Nashville Railroad is reported to have let contract to Adams & Sullivan to build a 6-mi. coal branch from Hamden up Carr's Fork. Later it may be extended. H. C. Williams, Louisville, Ky., is Chief Engr. of Construction.

N. C., Kenly.—Narrow Central Railroad Co., authorized capital \$250,000, with \$25,000 paid in, has been chartered to build a line from Kenly northwest to Zebulon, N. C., about 25 ml. Wiley Narron, Prest.; Newsom Narron, Gen. Mgr.; Jarvis Narron, Asst. Gen. Mgr.; J. H. Kirby, Secy. and Treas.; the other directors being Langley Narron and Pettis Narron. Headquarters at Kenly.

Okla., McAlester.—Missouri, Kansas & Texas Railway will build about 3½ ml. of additional yard tracks (not 10 ml. as reported) and grading is let to A. L. Cook of Ottawa, Kan. Tracks will be laid by railroad forces. F. Ringer, Dallas, Tex., is Chief Engr.

Tenn., Knoxville.—The Knoxville, Sevierville & Eastern Railway, it is reported, will complete its extension from Sevierville to Pigeon Forge, 10 ml., by April 1, the bridge over Pigeon River and the roadbed being finished. Tracklaying is proceeding.

Tenn., Knoxville.—Southern Railway is reported to have bought nearly 200 acres of land, part of which will be used for the construction of storage tracks. A cut-off may also be built. B. Herman is Chief Engr. at Charlotte, N. C.

Tenn., Lansing.—Emory River Lumber Co. is reported to have increased capital from \$200,000 to \$400,000 to build a railroad from Lansing to its timber tracts in Morgan County. Construction begins as soon as weather permits. J. S. Walker of Cincinnati, O., is president.

Tenn., Nashville.—Construction has begun on a branch of the Nashville, Chattanooga & St. Louis Railway from near Hermitage Station to Hadley's Bend and a point above the ferry near Edenwald, about 5 ml., to serve proposed Government powder plant. H. McDonald, Nashville, is Chief Engr.

Tenn., Nashville.—Nashville-Gallatin Interurban Railway will make preliminary survey for contemplated extension from Madison to Neeley's Bend Ferry to serve the Government powder plant. H. H. Corson and J. R. West are receivers.

Tex., Houston.—City Council is reported to have decided to let parts of contracts for the Municipal Belt Line Railroad to Hayden & Austin and the Houston Construction Co., but the contractors have not yet decided to accept the awards.

Tex., Pecos.—Standard Sulphur Corporation, surveying to build a railroad from Oria to its mines, about 10 ml., has not fully decided whether it will construct a standard-gauge road or an industrial line. Data on the cost of each type now being prepared. Robt. B. Swart, 1209 Majestic Bldg., Detroit, Mich., is Treas., and Paolo Fischer, 2210 Prairie Ave., Chicago, Ill., is Chief Engr. Alfred Tinnally, Pecos, is V.-P. Albert F. Pudrith is Prest., and G. F. Lathrop, Secy., both at Detroit.

Va., Bristol.—Ordinance authorizing Norfolk & Western Railway to make improvements costing about \$163,000 has been adopted by the City Council. Work includes enlargement of yards. J. E. Crawford, Roanoke, Va., is Chief Engr.

Va., Williamsburg.—Pine Dell Plantation Railroad, which will be for development of property and for timber operations, will be 3½ ml. long; not 5 ml. as reported. No bids asked. J. P. Christensen is Gen. Mgr.

STREET RAILWAYS

Ark., Little Rock.—Little Rock Railway & Electric Co. will, it is said, begin construction of double tracking and will also make an extension of the East 9th Street line. D. H. Cantrell is Prest.

Ga., Brunswick.—City & Suburban Railway Co., it is said, will immediately begin construction of an extension to several industrial plants. A. de Sola Mendes is Gen. Mgr.

Capital and Surplus
\$4,000,000



Total Resources
\$38,000,000

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FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCIAL CORPORATIONS

Ala., Carrollton. — Pickens County State Bank is chartered; capital \$60,000. L. C. Hudgins, Pres.; D. B. Miller, Cashier; A. E. Bell, 1st V.-P.; Geo. M. Collins, 2d V.-P. Business is to begin about three months.

Ark., Yellville. — Avey Abstract Co. Incptd.; capital \$5000. W. E. Layton, Pres.; Gus Young, V.-P.; E. H. Avey, Secy. and Treas. Business has begun.

Fla., St. Cloud. — Bank of St. Cloud Incptd. J. K. Conn, Pres.; C. D. Dyal, Cashier. Business is to begin about Feb. 15.

Fla., St. Petersburg. — Bank of St. Petersburg, capital \$50,000, is organized with Nat. B. Brophy, Pres.; A. T. Bloeker, 1st V.-P.; L. C. Morrow, Cashier.

Ky., Louisville. — The National Bank of Commerce and the German Bank are to be consolidated under the name of the National Bank of Commerce, with \$1,000,000 capital. James B. Brown will continue as Pres.

La., New Orleans. — Marine Bank & Trust Co., capital \$400,000, surplus \$100,000, has been organized. L. M. Pool will be Pres., and offices will be at 704 Common St. in the St. Charles Hotel Bldg.

La., New Orleans. — United States Safe Deposit & Savings Bank has decided to amend its charter, changing its name to the United States Trust & Savings Bank of New Orleans. A. B. Wheeler is Pres. and W. L. Miltenberger, Cash.

Okla., Durant. — Stewart Title Co., capital \$5000, Incptd. by E. H. Stewart, D. D. Stewart and D. S. Macdonald.

Okla., Okmulgee. — Okmulgee Securities Co. Incptd. by C. F. Bryan, C. C. Gibson and J. Roy Wilson.

Okla., Oklahoma City. — Strand Investment Co., capital \$25,000, is Incptd. by H. C. Briscoe, Ina McGregor and Caroline M. Daub.



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lines of business

Okla., Quinlan. — First National Bank has made application for charter; capital \$25,000.

S. C., Monetta. — Bank of Monetta is chartered; capital \$20,000. D. A. Cato, Pres. and Treas.; A. H. Stevens, V.-P. and Secy.

S. C., Ruby. — Farmers' Bank chartered; capital \$10,000. Petitioners: J. S. Smith, Jno. F. V. Cromley and M. L. Raley. Business is to begin in about 30 days.

S. C., Sharon. — Planters' Bank of Sharon is chartered; capital \$35,000. W. L. Hill, Pres.; C. O. Burrus, V.-P., and Clyde R. Hatchford, Secy.-Treas.

Tenn., Lexington. — Citizens' Bank and the Bank of Lexington have consolidated under the name of the Citizens' Bank of Lexington. T. A. Lancaster, Pres.; R. W. Howard, Cash.

Tex., Brownfield. — First National Bank has made application for charter; capital \$25,000.

Tex., Douglasville. — New bank, capitalized at \$15,000, is organized, with A. D. Morris, Pres.; A. C. Oliver, Jr., Cash.

Tex., Godley. — Citizens National Bank, to succeed the Citizens Bank, is chartered; capital \$25,000.

Tex., Quanah. — Guaranty Loan & Investment Co., capital \$10,000, is Incptd. by J. A. Radford, J. D. Hughes and S. J. Matthew.

Tex., Reedville. — First State Bank of Reedville is authorized to do business; capital \$12,000.

NEW SECURITIES

Ala., Foley. — (Light). — Bids will be opened Feb. 16 for \$3000 of 5 per cent. 10-year \$50 denomination bonds. Chas. A. Boller is Mayor.

Ala., Montgomery. — (Sewer Refunding). — Bids will be received until 11 A. M. March 19 for \$150,000 of 5 per cent. 30-year \$100 denomination bonds, dated May 1, 1913; maturity May 1, 1948. W. T. Robertson is Pres. Board of Commrs. C. J. Fay is City Clerk.

Ala., Tuscaloosa. — (Terminals). — Ordinance has been prepared providing for the issuing of \$50,000 bonds, to be dated March 1, 1913, maturing March 1, 1938. Address The Mayor.

Ark., Arkansas City. — (Auditorium). — Letter to Manufacturers Record denies report that city contemplates issuing bonds. (Late-ly noted.)

Ark., Newport. — (School). — \$34,000 of 6 per cent. Tuckerman Special School District, Jackson County, bonds have been purchased by Judge James Gould, Pine Bluff.

Ark., Texarkana. — (Indebtedness, Sewer, Fire Department). — Plans are being made for a loan of \$135,000 as follows: To retire indebtedness, \$45,000; sewer disposal plant, \$60,000; fire apparatus, \$11,000; balance to be used for future expenses. Interest is not to exceed 6 per cent. Address Mayor Kelley.

Fla., Arcadia. — (Road). — Election is to be held in De Soto County March 7 to vote on \$330,000 of bonds. B. N. Nance is Clerk County Court.

Fla., Ormond. — (School). — Steps are being taken to hold an election in Ormond, Volusia County, to vote on \$25,000 bonds. Address Supt. County Board of Education at De Land.

Fla., Fort Pierce. — (Time Warrants). — Bids will be received until 2 o'clock March 5 for all or any part of 10 time warrants of \$100 denomination, bearing 6 per cent. interest and dated Sept. 1, 1917. Address Board of County Commrs., St. Lucie County.

Fla., Fort Pierce. — (School). — Reported that Vero District, St. Lucie County, will bond for \$25,000. Address School Board.

Fla., Macclenny. — (Road, Bridge). — Bids will be received until 11 A. M. March 4 for \$75,000 of 5½ per cent. 1-25-year \$1000 denomination bonds Special Road and Bridge District No. 1, Baker County. Dated April 1, 1918. W. C. Thompson is Clerk Board of County Commrs.

Fla., Quincy. — (School). — Election is to be called in Gadsden County March 19 to vote on \$42,000 of bonds; \$30,000 to be used for erection of additional building and \$12,000 to pay off previous bond issue. Address George B. Gregory, School Trustee.

The Board of Directors of the American Cotton Oil Company on February 5, 1918, declared a quarterly dividend of 1 per cent. upon the Common Stock of the Company, payable March 1, 1918, at the Banking House of Winslow, Lanier & Co., 29 Cedar Street, New York City, to holders of record of such stock at the close of business on February 15, 1918. The Stock Transfer Books of the Company will not be closed.

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Fla., St. Augustine—(School).—\$38,000 of 5 per cent. 15-year St. John's County school warrants have been purchased at par by First National Bank, St. Augustine.

Fla., Tampa—(Road).—Bids will be opened March 11 for \$875,000 of 5 per cent. 30-year 1900 denomination road and bridge bonds of Hillsborough County. James G. Yeats is Chmn., and W. P. Culbreath, Clerk. County Comms.

Ga., Atlanta—(School Warrants).—Bids received Jan. 31 for \$2,000,000 bonds rejected; new bids asked until noon Feb. 13. H. M. Dorsey is Governor.

Ga., Jeffersonville—(Light, Water).—Election is to be held March 28 to vote on \$6000 light and \$9000 water 6 per cent. \$500 denomination bonds maturing serially \$500 a year for 30 years. J. G. Rockmore is Mayor and A. K. Smith, Secy. and Treas.

Ga., Ty Ty—(Water, Light, School).—Election is to be held March 8 to vote on \$3500 water, \$7000 light and \$2500 school 6 per cent. \$500 denomination bonds, one to mature and be paid off each year; electric light first, then water-works, then school. R. R. Pickett is Mayor, and J. B. Hollingsworth, City Clerk.

Ky., Covington—(School).—Bids will be received until noon Feb. 15 for \$250,000 of 5 per cent. 10-30-year bonds, dated Jan. 2, 1918; maturity Jan. 2, 1919 to 1958, inclusive. Denomination: \$100, \$500 and \$1000. W. A. Shore is Business Director Board of Education.

Miss., Aberdeen—(Road).—Bids will be received until 2 P. M. March 4 for \$75,000 of 6 per cent. \$500 denomination Supvs.' Dist. No. 3 (Hamilton Road Dist.). Monroe County bonds. G. G. Ray is Clerk Board of Supvs.

Miss., Biloxi—(Drainage).—Negotiations are to be made by the Mayor and Board of Aldermen for the sale of \$3500 of bonds for draining swamps in its vicinity of the city.

Miss., Booneville—(Road).—At public auction at noon Feb. 18 Board of Supvs. Prentiss County will offer for sale \$800 of bonds Blackland Road District No. 1. C. R. Lacy is Clerk.

Miss., Kosciusko—(Road).—\$60,000 Road Dist. No. 1 of Beat No. 2, Attalla County, have been purchased at \$60,648 and interest by Wm. R. Compton Co., St. Louis.

Miss., Meridian—(Water-works, etc.).—Election is to be held March 12 to vote on \$100,000 of not exceeding 6 per cent. bonds for purchase of land on the water shed and other improvements. J. M. Dabney is Mayor, and A. B. Amis, City Atty.

Mo., Fredericktown—(Road).—Election is to be held in Madison County Feb. 19 to vote on \$600,000 of 20-year bonds. Address County Comms.

Mo., St. Joseph—(Road).—\$2,000,000 Buchanan County road bonds are voted. Address County Comms.

Mo., St. Joseph—(Road, Culvert).—\$2,000,000 of 5 per cent. \$1000 denomination Buchanan County bonds are voted and bids for \$200,000 of the amount are to be offered immediately. Wm. Bub is County Judge.

N. C., Monroe—(Street).—\$75,000 funding and \$164,000 street 6 per cent. \$1000 denomination bonds have been purchased by John Nurren & Co., Chicago.

N. C., Newland—(Funding).—\$25,000 of 20-year Avery County bonds have been purchased at par and interest by E. C. Guy. J. W. Holtsclaw is Chmn. Board of County Comms.

N. C., Wilmington—(School).—A special election is to be called in New Hanover County to vote on not exceeding \$350,000 of bonds. Address County Comms.

Okla., Ada—(Road).—\$57,000 Allen Township and \$52,000 Francis Township, Pontotoc County, bonds are voted. Address County Comms.

Okla., Ada—(School).—Election will probably be held to vote on \$28,000 of bonds. Address School Board.

Okla., Altus—(Water-works).—\$80,000 of 6 per cent. 15-25-year \$1000 denomination bonds have been purchased at par by R. J. Edwards, Oklahoma City.

Okla., Altus—(Water).—\$80,000 of 6 per cent. 15-25-year bonds have been purchased at par by R. J. Edwards, Oklahoma City.

Okla., Canadian—(Water, Light).—Election will probably be called to vote on bonds. Address The Mayor.

Okla., Chandler—(School).—\$54,000 of 5 per cent. 25-year bonds Chandler District No. 1, Lincoln County, were recently voted. R. C. Love is Pres. and John T. Snyder, Secy. Lincoln County School Board.

Okla., Hartshorne—(City Hall).—Bonds are reported voted. Address The Mayor.

Okla., Laverne—(Light).—Electric-light plans bonds are reported voted. Address The Mayor.

Okla., Mangum—(Fire Truck).—Election will probably be called in near future to vote on bonds. Address The Mayor.

Okla., Miami—(Municipal Improvement).—\$300,000 of bonds are reported purchased by R. J. Edwards, Oklahoma City, through the First State Bank of Oklahoma City.

Okla., Okemah—(Light, Water, Sewer).—Election will probably soon be called to vote on bonds. Address The Mayor.

Okla., Paula Valley—(Sewer, Water, etc.).—\$25,000 sewer and water, \$9000 fire department and \$15,000 city park and community-house bonds are voted. Address The Mayor.

Okla., Paula Valley—(Courthouse).—\$150,000 Garvin County bonds were recently voted. Address County Comms.

Okla., Ponca City—(Water-works).—Reported that \$30,000 of bonds have been authorized. Address The Mayor.

Okla., Prague—(Light).—Election will probably soon be held to vote on bonds. Address The Mayor.

Okla., Sulphur—(Water).—Bonds are reported voted. Address The Mayor.

Okla., Zita—(School).—Election is to be held at Zita. It is reported, to vote on bonds. Address School Board.

Okla., Wapanucka—(Water, Light).—\$30,000 of 6 per cent. 25-year bonds have been purchased at par by Geo. W. & J. E. Piersol, Oklahoma City.

S. C., Lancaster—(School).—Bill has been introduced in the Legislature providing for an election to vote on \$80,000 of bonds. Address School Board.

Tenn., Chattanooga—(Paving).—\$4166.00 of 6 per cent. 1-4-year bonds have been purchased at par, accrued interest and \$28.50 premium by the Volunteer State Life Insurance Co., Chattanooga.

Tenn., Memphis—(Indebtedness Certificates).—City will offer on Feb. 12 \$750,000 of short term notes or certificates of indebtedness; interest 4½ to 6 per cent. C. C. Pashby is City Clerk.

Tenn., Nashville—(Police Station, Fire Hall, Sewer, School).—Bids will be received until 10 A. M. Feb. 19 by J. W. Dashiell, Secy. Board of City Comms. for the following 5 per cent. bonds, dated March 1, 1918: \$25,000 police station, maturing 1919 to 1938, inclusive; \$55,000 fire hall, maturing 1919 to 1938, inclusive; \$311,000 sewer sanitation, maturing 1919 to 1940, inclusive; \$125,000 burnt district school, maturing 1919 to 1948, inclusive.

Tex., Abilene—(Reservoir).—Bids will be received until 2 P. M. March 9 for \$230,000 of 5 per cent. 10-40-year \$1000 denomination bonds, dated Feb. 15, 1918. E. N. Kirby is Mayor. Address H. L. Roberts, City Secy. Further particulars will be found in the Proposals Department.

Tex., Athens—(Road).—\$50,000 Malakoff Road District, Henderson County, bonds are voted. Address County Comms.

Tex., Austin—(Bonds approved by Atty.-Gen.).—\$10,000 of 5 per cent. 10-40-year School District No. 9, Motley County; \$5000 of 5 per cent. 5-20-year Wilbarger County School District No. 9.

Tex., Ballinger—(School).—Question of issuing bonds is reported under consideration. Address School Board.

Tex., Ballinger—(Road).—Petitioners are to be presented to the Comms. Court asking that an election be held in Runnels County to vote on \$150,000 of bonds. Address County Comms.

Tex., Brady—(Water).—\$25,000 of bonds are voted. Address The Mayor.

Tex., Childress—(Road).—\$35,000 Childress County bonds are voted. Address County Comms.

Tex., Cameron—(Road).—\$15,000 Rockdale road bonds District 10, Milam County, are reported sold. Address County Comms.

Tex., Cameron—(Road).—Bids will be received at any time by W. G. Gillis, Judge Milam County, for \$150,000 of 5 per cent. 20-40-year bonds.

Tex., Canton—(Highway).—\$550,000 of Van Zandt County bonds are voted. Address County Comms.

Tex., Conroe—(Road).—Election will probably be held in Montgomery County to vote on \$150,000 of bonds. Address County Commissioners.

Tex., Crockett—(Road).—\$50,000 Road District 4, Crockett County, bonds are voted. Address County Comms.

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Tex., Eastland—(Road).—Comms. Court Eastland County Road Dist. No. 1 is receiving bids for \$130,000 of 5 per cent. 10-30-year bonds. Denomination \$1000. Dated Jan. 1, 1918. Cyrus B. Frost is County Judge. Further particulars will be found in the Proposals Department.

Tex., El Paso—(Sewer).—\$45,000 of bonds are voted. Address The Mayor.

Tex., Franklin—(Road).—\$50,000 bonds Eastern Precinct, Robertson County, have been voted. Address County Comms.

Tex., Gonzales—(Road).—\$60,000 bonds District No. 3, Gonzales County, were recently voted. J. C. Romberg is County Judge.

Tex., Hempstead—(Road).—\$15,000 of bonds Road District No. 5, Waller County, are voted. Address County Comms.

Tex., Liberty—(Road).—Districts in Liberty County have voted 5½ per cent. 20-30-year bonds as follows: No. 3, \$150,000; No. 4, \$75,000. C. N. Smith is County Judge.

Tex., Port Lavaca—(Road).—All bids received Jan. 28 for \$75,000 of 5 per cent. bonds Calhoun County Road District No. 2 were rejected. New bids are being received. F. M. Dudgeon is County Judge.

Tex., Port Lavaca—(Road).—All bids received Jan. 28 for \$75,000 of 5 per cent. 30-year \$1000 denomination bonds Road District No. 2, Calhoun County, rejected. Bonds will be sold at private sale. F. M. Dudgeon is Judge Calhoun County.

Tex., Seguin—(Road).—\$36,000 of 5 per cent. Guadalupe Dist., Guadalupe County, bonds recently voted, will be taken at par by the County Sinking Fund.

Tex., Sweetwater—(Road).—\$100,000 of 5 per cent. Nolan County bonds are reported purchased by W. A. Myrick, Lubbock, Tex.

Tex., Yonkum—(Hospital).—Petitions are being circulated asking the city comms. to call an election to vote on \$50,000 municipal hospital bonds. Address The Mayor.

Va., Portsmouth—(Road, Bridge).—Bill has been introduced in the Legislature providing for the issuing of \$1,000,000 of 6 per cent. 20-30-year Norfolk County road and bridge bonds. Denomination not less than \$1000, nor more than \$100,000. Thomas Black is Chrmn. Finance Committee of County Board of Suprvs.

W. Va., Beckley—(School).—\$60,000 of 6

per cent. Trap Hill Dist., Raleigh County, bonds defeated.

FINANCIAL NOTES

Gordon Cloyd has resigned as secretary of the fraudulent advertising committee of the Investment Bankers' Association of America, to conduct an advertising service for banks located outside the large financial centers, and has opened offices at 305 S. La Salle St., Chicago.

The Bank of Glade Spring, Va., announces that S. W. Keys has been elected cashier to succeed the late M. M. Morris, and that H. Morris was elected assistant cashier to succeed Mr. Keys. T. B. Porterfield is president.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Removal of Office.

The Durlon Castings Co. of Dayton O., manufacturers of "Durlon" acid-alkali-rust-proof apparatus, announces the removal of its Chicago office to the Harris Trust Bldg., to continue in charge of George A. Cocup.

Back From Manila.

J. H. Pardee, president of the J. G. White Management Corporation, New York, and J. P. Ripley, engineer, have returned from a general inspection of the Manila Electric Railroad & Light Co. and other interests in the Philippine Islands, operated by the J. G. White Management Corporation.

General Offices at Nutley, N. J.

The New York Continental Jewell Filtration Co. announces the removal of its general offices from 15 Broad St., New York, to its new and larger plant, located at Nutley, N. J., in the Newark district, where its address will be P. O. Box A, Nutley, N. J. Telephone: Nutley, 1173.

Hardwood Timber Wanted.

Craig Bros., Spencer, Va., advise that they want a tract of hardwood timber amounting to from 4,000,000 to 8,000,000 feet, not more than three miles from a railroad station, and in either Virginia or North Carolina. It must not be in a swampy region, and conditions must be good for logging.

Official Promotions.

The A. M. Byers Company, Pittsburgh, Pa., announces that the following appointments were effective January 1: L. M. Johnston, second vice-president; W. W. Williams, general manager; C. L. Jamison, secretary and treasurer; T. L. Lewis, general sales manager; S. P. Broome, assistant general sales manager. Mr. Johnston was general manager; Mr. Williams, general sales manager; Mr. Jamison, assistant secretary and treasurer, and Mr. Lewis, assistant general sales manager.

Trade Acceptances Described.

"Practical Questions and Answers on the Trade Acceptance Method" is the title of the tenth of a series of pamphlets issued by the Irving National Bank, Woolworth Bldg., New York. Every merchant or manufacturer will find this publication to contain much of interest to him. It clearly explains the advantages of trade acceptances as compared with drafts or notes, and it also presents an approved form of trade acceptance prepared under the supervision of committees of the Chamber of Commerce of the United States, the American Bankers' Association and the National Association of Credit Men. The pamphlet will be sent to anyone by the bank, if requested.

Change in Thor Selling Forces.

R. S. Cooper, vice-president of the Independent Pneumatic Tool Co., manufacturer of the Thor pneumatic tools and electric drills, and who for years was manager of the company's Eastern branch in New York city, assumed the duties of general sales manager on February 1, in addition to those of vice-president, and will have his headquarters at the company's general offices in the Thor Bldg., Chicago, Ill. R. T. Scott, formerly manager of the Pittsburgh branch

office, has been promoted to be Eastern manager, with headquarters at 170 Broadway, New York. H. P. Finney, who formerly traveled the Chicago and St. Louis territories, has succeeded Mr. Scott at Pittsburgh.

Power Equipment Sales.

The Ross Power Equipment Co., Merchants Bank Bldg., Indianapolis, Ind., reports, among recent business, sales to the following: Blair Milling Co., Atchison, Kan.; Rex Manufacturing Co., Connersville, Ind.; Kilby Car & Foundry Co., Anniston, Ala.; Lexington Mill & Elevator Co., Lexington, Neb.; Computing Cheese Cutter Co., and Apperson File Co., Anderson, Ind.; T. C. Keller Coal Co., Chicago; Monsanto Chemical Works, St. Louis; Kester Electric Co., Terre Haute, Ind.; Continental Gas & Electric Corp., Omaha, Neb.; Minnesota-Ontario Power Co., International Falls, Minn.; Merchants Heat & Light Co., Indianapolis; J. Bernstein, Tulsa, Okla.; Gaylord Engineering & Construction Co., Binghamton, N. Y., and Scranton, Pa.; Winnsboro Mills, Winnsboro, S. C.; Utilities Development Corporation, Chicago. O. C. Ross, president of the company reporting this business, was formerly connected with the Allis-Chalmers Mfg. Co. as salesman and manager of its Atlanta (Ga.) office.

TRADE LITERATURE

Portable Scoop Conveyors.

The Scoop Conveyor Sketchbook, issued by the Portable Machinery Co., Inc., Passaic, N. J., relates to the light-weight, portable belt conveyor which this organization manufactures. It presents a series of sketches illustrating practical applications of the machine so that the reader can understand at a glance what it is capable of doing. The last page contains a partial list of various industries employing these conveyors.

Gold Medal for a Building.

A folder entitled "The Building That Won the Gold Medal" has been issued by the Atlantic Terra-cotta Co., 1170 Broadway, New York, which says that the Fifth Avenue Association awarded its 1917 gold medal to the Postal Life Building at 43rd St. and Fifth Ave. as the year's best example of new construction in the Fifth Avenue district, and that this building is faced almost entirely with Atlantic terra-cotta.

Open Branch at Seattle.

An article in this month's issue of the Walworth Log presents an excellent description, with illustrations, of the new Seattle branch of the Walworth Manufacturing Company of Boston, maker of steam supplies, pipe and fittings, plumbers' supplies, etc. Thomas Nickerson will be the local manager. In connection with the description of the branch is also presented a brief history of Seattle and its brilliant reconstruction after the big fire in 1889.

About the Witte Engines.

Book No. 48 of the Witte Engine Works, Kansas City, Mo., is entitled "How to Judge Engines," and it was written by

(Continued on Page 86.)

THE GRUNEWALD

THEO. GRUNEWALD, Proprietor



New, Modern
Best Equipped and Finest
Hotel in the South

Cost Over \$2,000,000

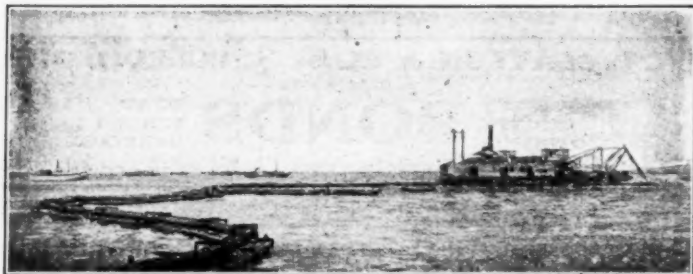
400 Rooms European Plan

RATES:

\$1.00 and Upwards. With Bath,
\$2.50 and Upwards.

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Filling, Land Reclamation, Canals
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River and Harbor Improvements,
Deep Waterways and Ship Channels

We are especially equipped to execute all kinds of
dredging, reclamation, and port works in Southern
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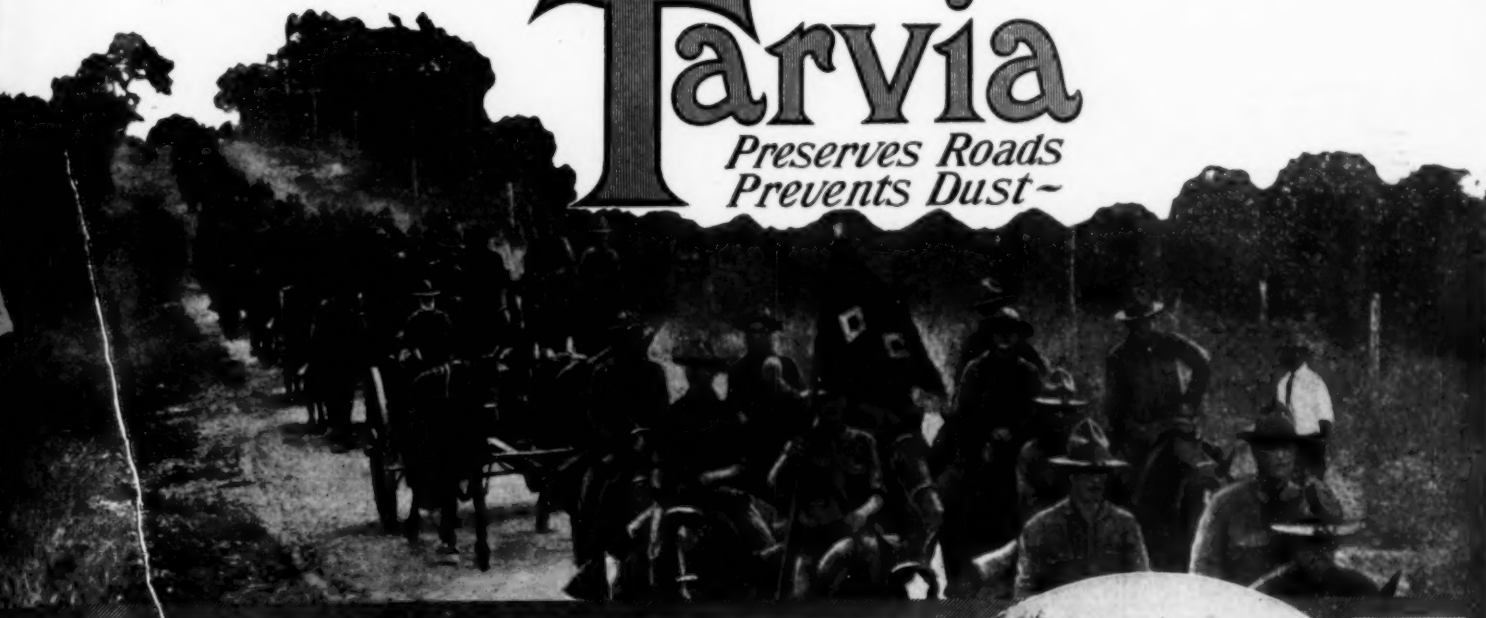
Atlantic, Gulf and Pacific Co.

NEW YORK

HOUSTON, TEX

Tarvia

Preserves Roads
Prevents Dust-



Tarvia Roads Withstand Severe War-Traffic—

THE troops in their Texan maneuvers in 1916-17 ruined many miles of ordinary roads.

The traffic was so strenuous that they quickly went to pieces.

Some roads, however, stood the test. *These were Tarvia Roads.*

They stood the strain of marching thousands. Horse, motor, and artillery divisions passed over them without number.

They had the equivalent of years of traffic in a few days.

The Gainesville *Daily Register* said:

"This army movement was the greatest since the Civil War, consisting of 15,000 infantrymen, 275 heavily loaded five-ton motor-trucks, 600 wagons, and 6,000 horses, in addition to all the field artillery, machine guns, mountain batteries, and other equipment."

The road commissioners were so well pleased with the way the Tarvia Roads withstood this severe traffic that they immediately ordered the construction of several additional miles in Travis County alone.

Tarvia Roads are built to withstand hard usage. It is for this reason that

they are in use on Government reservations, in the Army cantonments. Hundreds of the most important State and county thoroughfares all over the country are Tarvia Roads.

Today, owing to the great traffic congestion and the increasing cost of living, the country needs good roads more than ever before.

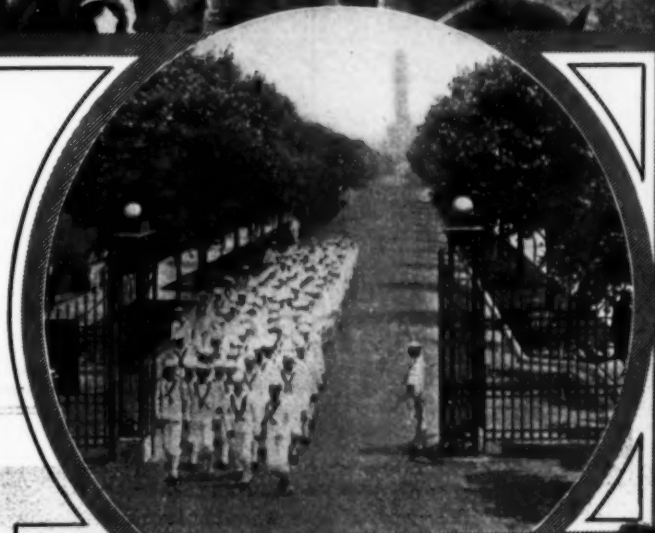
Poor roads add to the cost of everything we buy because they add to the cost of every ton that drags its weary weight over them.

Good roads, on the other hand, pay for themselves over and over again in decreased hauling charges and by saving wear and tear on vehicles and motor-cars.

The cheapest form of good road construction today is Tarvia Roads, because their first cost is low and no form of road construction is so inexpensive to maintain.

Write to the Tarvia Special Service Department and they will give you expert and practical information and suggestions regarding the best method of getting good roads in your community.

There are several grades of Tarvia and a dozen methods of using the product to meet varying road conditions.



(Top)—Troop movement over Tarvia-treated Government post-road in Travis County, Texas.
(Center)—Entrance road to Naval Station at Great Lakes, Illinois. All main roads within the Station are built with Tarvia.
(Bottom)—Tarvia-treated road at Camp Douglas, Wis.

Special Service Department

This company has a corps of trained engineers and chemists who have given years of study to modern road problems.

The advice of these men may be had for the asking by any one interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.

New York Chicago Philadelphia
Cleveland Cincinnati Pittsburgh
Kansas City Minneapolis Nashville

THE BARRETT COMPANY, Limited:

The Barrett Company

Montreal Toronto Winnipeg Vancouver

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Detroit

Salt Lake City

St. John, N. B.

St. Louis

Firmingham

Seattle Peoria

Halifax, N. S.

Sydney, N. S.



(Continued from Page 84.)

Ed H. Witte, president of the company, which was erroneously referred to in a recent item as the "White" Engine Works. This plant manufactures kerosene, gasoline, distillate and oil engines, one of these machines being beautifully illustrated in colors in the book.

An Appropriate Picture.

Cutting & Washington, Inc., radio engineers and manufacturers, 26 Portland St., Cambridge, Mass., have issued their February blotters without calendar, substituting therefor the picture of a man in deep shadow and looking out of a window. He bears a remarkable resemblance to Abraham Lincoln, which, in view of the fact that the anniversary of Lincoln's birth is February 12, is quite appropriate. The face of the figure is brightly lighted as from rays without, and against the dark background it is impressive.

Oldsmar, on Old Tampa Bay.

A level road, skirting a broad bay, whose sandy beaches enclose its waters gleaming in the sun, and piney woods, with semitropical vegetation in the foreground, are pictured on the title-page of "Oldsmar," a booklet issued by the Reolds Farms Co. Oldsmar is but 15 miles from Tampa, Fla., on the shore of Old Tampa Bay. It was named in honor of R. E. Olds, and 35,000 acres of land are being developed. The book tells about how this is done, and it presents pictures to illuminate the text. There is something interesting on every page.

An Interesting Bulletin.

The Colorado Fuel & Iron Co.'s Industrial Bulletin, dated January 31, says that the company has unfurled a service flag bearing 768 stars, representing those of its employees who have entered the military service of the United States. New names added to the list since the last quarterly number was issued in October are also published. The company's by-product coke plant at Minnequa Works, Pueblo, Colo., is the subject of a special illustrated article. The Minnequa Hospital is likewise described and pictured attractively. There are several other excellent contributions.

Birmingham: Its Growth.

The Chamber of Commerce of Birmingham, Ala., Blanks Everett, general manager, has issued a special folder presenting in compact form a story of the marvelous growth of that city. It shows that Birmingham is conspicuously a leader among Southern cities, having a population of 212,436, with 336 manufacturing establishments, these figures being set forth in a survey made by O. L. Bunn, secretary-treasurer of the Birmingham Traffic Bureau. These 336 plants, it is further stated, represent an investment of \$232,476,735, the number including 25 having an investment of \$1,000,000 or more each; 75 having from \$100,000 to \$1,000,000 invested, and 133 having from \$10,000 to \$100,000 in each industry.

Westinghouse Bakelite Micarta Gears.

Technical information regarding Bakelite Micarta-D Gears is contained in a pamphlet recently published by the Westinghouse Electric & Manufacturing Co. of East Pittsburgh. The distinctive features of this material for noiseless gears and pinions are listed, together with its physical properties. Methods of turning and drilling and gear-cutting are described and illustrated with many halftones and drawings. Methods of attaching to the driving shaft, which have proved suitable for gears of all sizes, are shown, and tables of pitch, teeth and other gear data are also given. There are formulas for the horse-power rating, the amount of power which can be transmitted through press fit and for calculating other variables in gear practice. The book will be sent on request.

Great Ductility of "National" Pipe.

A circular presenting seven illustrations of the remarkable ductility of "National" pipe has been issued by the National Tube Co., Frick Bldg., Pittsburgh, Pa. One of these is a large two-page picture showing what happened when 26 lengths of this pipe were blown out of an oil well at Batson, Tex., when the gas therein got beyond control. It is stated that there was not even a sign of a break in even one joint of the entire lot of piping, and the illustration shows it lying on the ground as it fell in several loops, just like cracking a whip. It was 350 feet from one extremity of the pipe to the other. Another picture displays a piece of

pipe twisted on its own axis without fracture, and still another shows a piece tied in a knot with equally good results. The other illustrations are all quite as interesting as these described.

"Truscon" Steel Buildings.

"The building you want is in our warehouse," says the Trussed Concrete Steel Co., Detroit, Mich., on the cover-page of its new catalog, which describes and illustrates standardized structures built with standard stock units. The rapidity with which one of these standardized buildings may be erected is displayed on page 2, on which there is shown two pictures, one representing the work of clearing the site for one of these "Truscon" steel buildings, and the other, taken only two weeks later, showing the completed building, this for the Reliable Engine Co., Portsmouth, O., which, in a letter, testifies to the quality of the work and the expedition with which it was done.

These buildings may be used for various purposes, and they are prepared in different patterns to meet the needs of miscellaneous industries, etc. There are many illustrations showing how they can be adapted, full descriptions accompanying the pictures.

All About Concrete.

"The Ransome Book—How to Make and How to Use Concrete," by H. Collin Campbell, C.E., E.M., presents a mass of useful data applicable to almost any and every kind of concrete work. It also contains information developed by practical experiences which cannot be otherwise than very valuable to anyone who has to do with concrete. In all work with materials and combinations of materials there are often many things essential to the complete success of any operation which may be overlooked because they are seemingly insignificant, yet the bearing which they have upon results may be very important. Now, this book reminds one of many such things; it tends to keep workers vigilant and attentive, and for this reason will, if for none other, be welcomed by contractors. Besides, it contains numerous specifications, diagrams and tables invaluable for reference. There are also other excellent illustrations. The book is published by the Ransome Concrete Machinery Co. (now the Ransome-Leach Co.), 115 Broadway, New York city. Price, \$1.

Making Whole Editions of Books.

"The House Between," issued by L. E. Jenkins, Inc., Richmond, Va., narrates a most interesting and novel story, accompanying the tale with instructive and excellent illustrations. "The House Between" is the printery and bindery which stands between the book publisher and the public and this establishment, which was founded by Mr. Jenkins, was started as a general bookbinding and blankbook manufacturing business, but later on he decided to devote it to a specialty, so that the company now does nothing but make books in whole editions, printing and binding them for publishers, whose orders come from a score of States. In short, it is a book factory alone; no small business about it, and, moreover, it is a fully up-to-date concern, with attractive environment, so that the employees are happy and contented, and are inspired to do their best to make all their products without superior. Every line of Mr. Jenkins' story is entertaining.

The Story of Cyanamid.

"Cyanamid," a booklet issued by the American Cyanamid Co., 511 Fifth Ave., New York, is entertaining and instructive on every one of its 45 pages. It is bountifully illustrated in the telling of the story about obtaining nitrogen from the air and making it a commercial possibility for fertilizing. How the nitrogen is converted from a gas to a solid form in the making of cyanamid is most interestingly related, and the history of the development of this comparatively new industry is none the less attractive. Briefly, the process is summed up in one paragraph, saying: "The greatest cold and the greatest heat obtainable on a large scale are used in the manufacture of cyanamid. The extreme coldness of liquid air is used to produce pure nitrogen gas. The extreme heat of the electric furnace is used to produce calcium carbide. The pure nitrogen, absorbed by the powdered calcium, in a special oven, forms cyanamid." Numerous pictures illustrate the manufacturing processes, and also the effect of the product upon various farm crops. The cyanamid works are at Niagara Falls, Canada; the Ammo-Phos works on New York harbor, and the phosphate mines at Brewster, Fla. This booklet is the tenth anniversary edition, the company having started in 1907.

Bethlehem Steel Co.,
Bethlehem, Pa.



Bethlehem Steel Uses CORR-MESH

A scientific rib and mesh design to secure maximum efficiency of reinforcement for concrete, is another result of the Corrugated Bar Co.'s development of *perfect reinforcement in concrete construction.*

CORR-MESH should not be confused with the different types of expanded metal lath.

CORR-MESH is more than lath—it is reinforcing material that eliminates expensive form work for side walls, roof and floor construction.

CORR-MESH is a companion material of CORRUGATED BARS and CORR-PLATE FLOORS.

Catalog and full particulars sent in response to request on business letter-heads.

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Mutual Life Building, Buffalo, N. Y.

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New York	Philadelphia	St. Louis	Chicago
	Houston	Atlanta	